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II

PUBLIC UTILITY CONTROL IN MASSACHUSETTS

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PUBLIC UTILITY CONTROL IN MASSACHUSETTS

A STUDY IN THE COMMISSION REGULATION
OF SECURITY ISSUES AND RATES

BY

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NEW HAVEN

YALE UNIVERSITY PRESS

LONDON · HUMPHREY MILFORD · OXFORD UNIVERSITY PRESS

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TO
MY MOTHER AND FATHER

JUN 30 1933

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PREFACE

THE present work had as its original purpose an investigation of the practical application of the doctrine of the prudent investment theory to the problems of rate regulation. From numerous references to the Massachusetts practice in court decisions, commission reports, and general treatises on public utility regulation, it was apparent that a widespread opinion existed among those interested in the subject that the Massachusetts commissions had for some years been regulating the companies under their jurisdiction in accordance with the principles of the prudent investment theory. It was in the hope of arriving at some conclusion with regard to the validity of this theory that Massachusetts was selected as a "case" study. As the investigation progressed, it became evident that the Massachusetts commissions had never really applied the prudent investment theory in its entirety to their regulatory problems. At this point, I was prepared to give up any idea of publishing the study, but most of those who have read the manuscript have encouraged me to publish it, which I do herewith. It is hoped that this detailed study of regulation of security issues and rates in one state may shed some light on the more general aspects of public utility regulation.

This study was originally undertaken as a dissertation in partial fulfilment of the requirements for the degree of Doctor of Philosophy in economics at the Graduate School of Yale University. While engaged in the investigation, I was a recipient of a Strathcona Memorial Fellowship, and funds for its present publication have been made available from the same source through the Committee on Transportation of Yale University.

It is a pleasant duty to acknowledge the assistance that I have received during the preparation of this study. The Honorable Henry C. Attwill, Henry G. Wells, Everett E. Stone, and Lewis Goldberg of the Massachusetts Department of Public Utilities have very kindly explained many phases of the situation in Massachusetts. Messrs. Luther R. Nash of Stone & Webster, Inc.,

Sheldon E. Wardwell of the Massachusetts Bar, and Charles A. Williams of Charles H. Tenney & Company have been particularly helpful in aiding me to appreciate the point of view of the utilities. Professors James C. Bonbright of Columbia University and Richard J. Smith of the Yale School of Law, and Mr. Sheldon E. Wardwell have read the manuscript and offered valuable criticisms and suggestions with respect to various parts of the work.

I wish also to express my debt to my teacher and friend, Professor Winthrop M. Daniels. My work under him both in classroom and seminar provided an invaluable foundation for an approach to the problems herein considered. His personal interest and encouragement have been a constant stimulus throughout the study. He has spared neither time nor effort in reading the manuscript and offering helpful criticisms.

In any discussion of a complex and controversial problem, it is inevitable that errors of conclusion and fact will still be found in the finished product despite the care and effort expended in attempting to eliminate them. It is hoped, however, that such errors as persist are relatively insignificant and such as not to vitiate whatever merit the study may have in contributing to a better understanding of the problems involved in the regulation of public service companies.

I. R. B.

New Haven, Connecticut

June 1, 1929.

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CHAPTER I

THE DEVELOPMENT OF REGULATORY MACHINERY IN MASSACHUSETTS

The Nature and Scope of This Study

FOR more than a quarter of a century, the question, upon what basis public utilities shall be permitted to earn a return, has been one of the most vexatious that have confronted the regulatory commissions and the courts. Today it continues an outstanding obstacle to the efficient and effective regulation of our public service corporations. The annual cost of regulation constitutes an enormous burden upon the American public. It has been estimated that this annual charge amounts, at least, to \$100,000,000 a year.¹ And critics of the present method of regulation have not hesitated to attribute a large percentage of this expense to the ineffectiveness of "present fair value" as a basis upon which rates are to be regulated.

The adoption of "prudent investment" for the rate base has been the reform most frequently urged as a solution for the alleged vague and unsatisfactory results of the Supreme Court doctrine of present fair value. In such discussions of the use of prudent investment as the rate base, frequent references have been made to Massachusetts as a prominent exponent of the successful development and satisfactory application of the prudent invest-

¹ "The expenses of regulation have been enormous. The direct cost on the part of the public and the companies (all ultimately borne by the public) have never been computed, but in the aggregate throughout the United States, probably amount to no less than \$100,000,000 a year. The vast expenditures, however, might be justified if the results were measurably satisfactory—if rates were increased when properly required and decreased when fairly justified; but there are no such ready adjustments in rates according to changing conditions. Every change involves a long struggle, which in one case or during one period imposes unreasonable hardships upon consumers, and in other cases or other times imposes actual confiscation upon the companies." J. Bauer, "The Problem of Effective Regulation of Public Utilities," *Harvard Business Review*, V (October, 1926), 68, 72. *Idem*, *Effective Regulation of Public Utilities*, p. 11.

ment theory.² This study is devoted to an examination of some of the more significant aspects of the regulatory policy of Massachusetts as applied to public service corporations.

A study of this kind quite naturally divides itself into two phases—a historical phase, and an analytical and critical phase. Before one can presume to pass judgment upon principles and policies, it is necessary to have some acquaintance with their historical development, some knowledge of the economic situations to which they are the attempted adjustments. With this historical background at one's command, it is then possible and permissible to analyze these doctrines and to appraise critically the effects of their application.

Accordingly, the first chapter is devoted to a survey of the development of the regulatory machinery in Massachusetts. The attempt to regulate businesses "affected with a public interest" by statutory enactments with enforcement through the law courts early proved inadequate. In 1869 the Board of Railroad Commissioners was created as a "weak" commission with power only to conduct investigations and make recommendations. Following the failure of the recommendatory type of commission to protect the public interest, the Public Service Commission was established in 1913 to replace the railroad commission. The Public Service Commission was one of the "strong," or mandatory, type with full and complete power to regulate the utilities under its jurisdiction. The Board of Gas and Electric Light Commissioners which functioned from 1895 to 1919 possessed rather more extensive powers than did the railroad commission. The present Department of Public Utilities was formed by the consolidation of the Board of Gas and Electric Light Commissioners and the Public Service Commission. All the Massachusetts utilities are subject to its jurisdiction, and its control and supervision, extending to all phases of utility regulation, is full and complete.

In the second chapter, a detailed sketch of the statutory con-

² The separate opinion of Mr. Justice Brandeis in *S. W. Tel. Co. v. Pub. Serv. Comm.*, 262 U. S. 276, 301 *et seq.* (1923). Concurring opinion of Commissioner Eastman in *Excess Income of St. Louis & O'Fallon Ry. Co.*, 124 I.C.C. 3, 49-59 (1927). L. R. Nash, *The Economics of Public Utilities*, p. 168. R. H. Whitten, and D. F. Wilcox, *Valuation of Public Service Corporations*, I, 306-322.

trol over the issuance of securities by public service corporations is presented. This regulation has endeavored to keep the outstanding securities of utilities at a minimum by allowing their issue only for approved purposes, and by requiring them to be issued at the highest feasible prices so as to raise the required funds from the smallest par issue of securities. This supervision has included all types of securities and has been applied virtually from the beginning of public utility development in Massachusetts.

The third chapter is a companion chapter to the preceding, in which is traced the statutory development of the power of the commissions to regulate rates.

The fourth chapter is in many ways the most important. It is concerned with a detailed analysis of the administrative policies evolved by the Massachusetts commissions in their regulation of rates. The profound influence which has been exerted upon rate regulation by the regulation of the security issues of public service companies is indicated. The so-called Massachusetts rule is considered at length. The decisions of the Massachusetts commissions are analyzed to ascertain the degree to which this rule has been applied in actual practice. An attempt is made to go beyond the mere statements of the commissions to discover the actual procedure followed by the commissions in their regulation of rates. The influence of the commissions' endeavor to permit such rates as would maintain the market value of the utilities securities at or above par is stressed.

The fifth chapter presents a comparative analysis of rate regulation under the Massachusetts policy, under the present fair value rule which has had the approval of the United States Supreme Court, and as it would be under a strict application of the prudent investment theory. The major conclusion from this part of the study is that the Massachusetts commissions have never regulated the utilities subject to their jurisdiction in accordance with a well-defined prudent investment theory; there are more points of difference between the so-called Massachusetts rule and the generally accepted conception of the prudent investment theory than there are points of resemblance. The comparison of the Massachusetts practice with the procedure approved by the Supreme Court reveals many points at which the former fails to

conform to the practice which has thus far been uniformly approved by the federal courts.

The final chapter is concerned with appraising the general effectiveness of the regulation of security issues of Massachusetts public utilities and the validity of the regulation of their rates from a legal and economic point of view. Certain proposed changes in the statutory law and in the administrative practices of the commission have been noted and commented upon.

In this consideration of the Massachusetts policy, attention is confined largely to the regulation of railroads,³ street railways, and gas and electric companies, since it is in connection with these utilities that there is to be found the most frequent formulation of principles. Where pertinent, reference will also be made to the regulation of other utilities—water, and telephone and telegraph companies.

Direct Regulation by the General Court

For more than thirty years prior to the creation of a permanent board of railroad commissioners in 1869, the Commonwealth relied upon direct legislative regulation by the General Court, aided, for the most part, by legislative investigating committees. During this early period, the chief concern of the people and the state was to do all possible to promote and encourage the building of railroads, especially railroads to connect Boston and the West.⁴ The first report of the Board of Railroad Commissioners contains the following reference to this early attitude toward railroads:

The traditional policy of the Commonwealth in regard to the devel-

³ In regard to the regulation of steam railroads, most of which are interstate carriers, the discussion will be limited to the period prior to regulation by the Interstate Commerce Commission. In 1886 the *Wabash* case (*Wabash, St. Louis and Pacific Railway Company v. Illinois*, 118 U. S. 557) established that the control over interstate rates was vested exclusively in the federal government and its instrumentalities. The Esch-Cummins Act of 1920 gave to the Interstate Commerce Commission the full and plenary power to regulate the issue of securities by interstate railroads (except street, suburban, or interurban electric railways not operated as part of a general steam railroad system of transportation).

⁴ See Mass. Senate document 57 of 1851, and House documents 125 of 1858, 330 of 1866, 181 of 1867.

opment of the railroad system, so far as it has interfered at all with a natural growth through private enterprise, has been simple and based on obvious principles. . . . The key to that policy has ever been found in a ruling desire to open new and broader channels of commerce with the West. Before the possibility of crossing the Berkshire hills by steam was imagined, a canal had already been projected and surveyed, which was to pierce the mountains by a tunnel, . . . and was to connect Boston, by water, with Albany and the Erie Canal. . . . The invention of the railway and steam locomotive superseded this plan, and the attention of the community was immediately directed toward attaining the same end by the newly discovered means. The Western Railroad was projected and chartered in 1833, and the Commonwealth first identified itself with the system of railroad development in 1836 by subscribing to 10,000 shares of the capital stock of the enterprise. State aid, as the loan of the credit of the State to private corporations has been called, has been granted to many railroads, but almost invariably to corporations formed with a view to what is called "through business"; and, in the great majority of cases, to through business with the West.⁵

The extension of state aid following 1837 assumed substantial proportions.⁶ Not only did the state subscribe directly, but even the cities and towns were authorized to subscribe for railroad securities.⁷ For the present purposes, however, the chief interest in these extensions of state aid arises from the fact that they provided the occasion for the first investigations of railroads by com-

⁵ 1st Ann. Rep. Mass. R. C. 13 (1869).

⁶ See Mass. House document 114 of 1866,—“A statement showing to what railroad enterprises the Commonwealth has contributed, either in money or by the lending of its credit; to what extent of either to each, and to what extent the credit of the Commonwealth is at present pledged for such enterprises.” See also C. F. Adams, Jr., “Railway Problems in 1869,” *North American Review* (January, 1870), pp. 116, 118–120.

⁷ “The credit of the state, first extended in behalf of railroad corporations in 1837, was employed within the next four years to an amount of over \$6,000,000. The opposition of Governors Morton and Davis sufficed to bring this period of state aid to an end in 1841; but in 1854 the General Court granted \$2,000,000 to the Troy and Greenfield to aid in the construction of the Hoosac Tunnel. By a series of authorizations, over \$3,300,000 had also been voted by various towns and cities to assist railroad construction; and in 1869 towns of less than 12,000 inhabitants were authorized to subscribe in aid of railroads a total amount of \$22,000,000, of which sum over \$2,300,000 had been applied by the end of 1870.” L. D. White, “The Origin of Utility Commissions in Massachusetts,” *Journal of Political Economy*, XXII (March, 1921), 177, 187.

mittees of the legislature. In an address to the two branches of the legislature in 1840, Governor Morton expressed some apprehension concerning the heavy liabilities assumed by the state, and recommended an investigation of certain railroad corporations.⁸

These two factors—interest in a western rail connection and grants of state aid—were responsible for the early recognition in Massachusetts of railroads as “affected with a public interest.” Beginning in 1836, the railroads were required to file annual returns. Until 1850 these returns formed the basis of annual reports made to the legislature by a joint committee on railroads and canals. From 1851 to 1869, the returns were given publicity together with abstracts therefrom prepared by the secretary of the commonwealth. The returns were not made regularly, and the form of the required report failed to disclose the significant facts concerning the financial condition of the companies. Furthermore, no examination was made of the reports either to test their accuracy or to determine the true condition of the railroad.⁹ Thus the publicity feature of direct legislative regulation proved ineffective.

The device of the special legislature committee proved equally ineffective to prevent infractions of the law. These committees were not permanent, being appointed only when conditions became so serious that a majority of the legislature were convinced of the necessity of an investigation, and functioning only while the General Court was in session. Conducted by non-experts, the investigations, as often as not, failed to secure the significant facts: and because of their infrequency and irregularity, failed to exert a salutary influence upon the companies.¹⁰

Direct legislative regulation disclosed other inherent disadvantages, the chief of which was that a heavy and unnecessary burden was placed upon the General Court. The requirement that all rail-

⁸ Massachusetts House document 9 of 1840. At page 22, Governor Morton said: “The State, by its responsibilities for several rail road corporations, has acquired such an interest in their success as will justify an investigation of their affairs, to ascertain whether a due regard to the interest of the state and to economy, has been observed in the number of officers and agents employed, in the compensation paid to them, and in the manner of making assessments upon the capital stock.”

⁹ White, *op. cit.*, pp. 177, 195.

¹⁰ *Ibid.*, pp. 194–195.

roads and street railways be incorporated by special charter not only wasted a great deal of the time of the legislature, but it also opened the door to logrolling and corruption.¹¹ In the end, incorporation by special charter did not effectively regulate the existing companies nor protect the community from wasteful competition. In its second annual report, the Board of Railroad Commissioners urged upon the General Court the advisability of enacting a general incorporation law;¹² and in his address to the legislature in January, 1872, Governor Washburn recommended the passage of such a law.¹³ A general railroad law was passed in that

¹¹ "Every one has an idea, more or less accurate, of the system of legislative influence and control which the railroads have developed. They are regularly represented by their directors, attorneys, or agents, in every Congress and in each State legislature. Neither is this a fact at all to be regretted, if their action stopped here. The railroad system represents so large a property, and so directly involves in its workings the most delicate interests of our day, that it is both right and desirable that it should be adequately and intelligently represented in every legislative hall. . . . The difficulty with their political action lies deeper down. Corporations are necessarily selfish. . . . Public questions and political and moral discussions are nothing to them; they look simply to the results which their own interests demand, and use the agents who most successfully secure those results, without greatly concerning themselves about the means they employ. One consequence of this has been the growth of a most corrupt system of legislative manipulation and log-rolling. . . . Alarming illustrations might be drawn from the recent experience of Massachusetts, New York, Pennsylvania, or Illinois. In some of those States, within the last year, bills of a very diverse character, engineered by corporation counsel, have been combined and balanced one against another in the committee-rooms, and this with scarcely any pretence at concealment; forces were collected, disciplined, and told off, and then the measures were marched into the legislatures in solid column and carried through, almost without a struggle." Adams, *op. cit.*, pp. 116, 126-127.

¹² "A system of special legislation is usually justified upon the assumption that certain public duties can best be performed by monopolists, who are to be protected and regulated in the enjoyment of their monopoly by law. The existing railroads of Massachusetts are not at present regulated by law, neither does the legislature protect them against injudicious competition. . . . The same questions are yearly fought over in committee, and on the floors of the two houses with a uniform final result,—any charter that is asked for is finally granted. The process necessary to procure success may be described as a mixed one,—consisting of persistency, combined with log-rolling." 2d Ann. Rep. Mass. R. C. vi-vii (1870).

¹³ "Pass a general railroad law, sufficiently well guarded to protect the rights of the public, so that any body of citizens, under proper restrictions and subject to the approval of some branch of the government, may organize a company and build a railroad without the necessity of coming here for an Act

year,¹⁴ but it was not until 1874 that a general incorporation law applicable to street railways was passed.¹⁵

The necessity and desirability of a railroad commission was discussed for many years before a permanent board was created in 1869. As early as 1839, a senate committee submitted a report on the expediency of making general provisions of law defining the rights and duties of railroad corporations.¹⁶ Section 3 of the proposed act contained a provision for the appointment by the governor of three persons as "Rail-road Commissioners" whose chief duty should be to decide the terms for the joint use of tracks when the companies concerned failed to reach an agreement.¹⁷

In 1845 a law had been enacted authorizing the governor to appoint five persons to constitute a "board of railroad commissioners."¹⁸ The particular duty of this board was to act as an intermediary between the General Court and those seeking railroad charters. It considered petitions; conducted hearings thereon; made examinations of plans; and reported concerning each petition to the legislature. The object of this board was thus simply to relieve the General Court of the burden attendant upon considering each petition in detail. This board was short-lived; for, after a year, the act creating it was repealed.¹⁹ In 1847, a bill was introduced but apparently not passed which, in substance, provided for the reestablishment of the board of railroad commissioners of 1845 with similar duties, but wider powers, in the investigation of petitions for railroad charters.²⁰

of incorporation, and you will do away with many evils to which I have referred. Why such a general law should not be enacted I confess myself wholly unable to comprehend. From first to last, nearly four hundred railway charters have been granted in this State, or more than one to every five miles of railroad ever constructed within our limits. The Legislature of last year passed no less than fifty-three railway enactments, of which fourteen were Acts of incorporation. The passage of one proper general law would have obviated the necessity for this and all similar special legislation. A railway code has been enacted in nearly every important State but our own, and experience has demonstrated its utility and advantage wherever fairly tried. I trust a law of this character may be made at the present session of your honorable bodies." Mass. Senate document 1 of 1872.

¹⁴ Mass. Acts of 1872, c. 53.

¹⁵ *Ibid.*, 1874, c. 29.

¹⁶ Mass. Senate document 19 of 1839.

¹⁷ *Ibid.*

¹⁸ Mass. Acts of 1845, c. 252.

¹⁹ *Ibid.*, 1846, c. 190. See also 41st. Ann. Rep. Mass. R. C. 50 (1909).

²⁰ Mass. Senate document 58 of 1847.

In 1864 a board of railroad commissioners, consisting of three individuals appointed by the governor, was created.²¹ This board was given jurisdiction over railroad crossings at grade, and authority to require the erection of gates and the stationing of an agent when the public safety required. This act contained a provision to the effect that all expenses and costs were to be paid by the railroads.²²

The Board of Railroad Commissioners

The causes responsible for the establishment of the permanent Board of Railroad Commissioners in 1869 need only be mentioned here. The inadequacy of direct legislative regulation had been amply demonstrated. The use of legislative investigating committees had early proved wholly ineffective to secure the enforcement of the laws relative to railroads and street railways. Indeed so numerous were the enactments that, in the absence of a codification of the laws, it was virtually impossible for railroad officials to avoid infractions of the law.²³ The increase in the number and importance of the railroads and street railways imposed an ever increasing burden upon the General Court, and clearly necessitated the development of some alternative method of regulation.²⁴ Also,

²¹ Mass. Acts of 1864, c. 152.

²² "In all cases heard before commissioners under the provisions of this act, the expenses and costs attending the same, including the compensation of the commissioners, shall be paid by the railroad corporation." Mass. Acts of 1864, c. 152, § 7.

²³ It might be asked why it was not possible to pass general laws governing the railroads and street railways and rely upon the courts for the effective administration of the same. The large number of special acts indicated, however, that some appropriate consideration of the diverse circumstances and conditions affecting the different roads at the same time and the same road at different times required a correspondingly more flexible form of administration than could be provided by the enforcement of general statutes by the courts.

²⁴ The report of a special commission, appointed to consider the relation of street railways to cities and towns, contained the following statement: "We should have been gratified to present some scheme of legislation which would relieve the general court of the annoyance and burden of examining and disposing of the multiplicity of legislative projects likely to come before them at every session for some years, in regard to the subject. But none has come to us, as at all hopeful, unless it were to be found in a permanent board of railway commissioners, who should assume the general jurisdiction of all disputed questions arising in regard to railway management and operation within the Commonwealth; and to whom all projects for legislative amendment, or extension of

because of the increasing importance of railroads and street railways in the life of the community, it was considered advisable to safeguard investments therein so as to attract new capital to these essential undertakings.²⁵ The scandal connected with the building of the Boston, Hartford, and Erie established conclusively the utter incompetence of the legislature to deal directly with railroad corporations, and brought to a climax a five-year struggle to create a permanent board of railroad commissioners.²⁶

the existing law should first be submitted and only be liable to come before the general court upon their favorable report." Mass. House document 15 of 1865. See also R. H. Whitten, *Public Administration in Massachusetts* (Columbia University, Studies in History, Economics and Public Law, VIII, No. 4, 1898), Chap. viii.

²⁵ "From the testimony before us, and from all we know or can learn in regard to street railways, we entertain no doubt they must be regarded as an indispensable necessity, the call for which will be likely to increase rather than diminish in the future; and that, if properly managed, they may be made remunerative at very low rates of fare. The investments, therefore, in such enterprises may jointly claim, on the part of the general court, the inauguration, or the continuance of such a policy in regard to them as shall render them as secure and permanent, as the nature of the property will fairly permit." Mass. House document 15 of 1865.

²⁶ "The entanglement with the Boston, Hartford, and Erie completed the demonstration of the necessity for more effective public control. This road appeared before the General Court in 1867 praying for assistance in completing its connection with the West. Mr. Charles Francis Adams had not yet taught the legislature the true interest of the state in its railroads, and the General Court was easily persuaded to loan credit to this optimistic applicant. Soon, however, ugly rumors began to be heard, and in the spring of 1869 it became apparent that the funds of the company, obtained in part from the Commonwealth, were being used for speculative and fraudulent purposes. The attorney general, at a public hearing, described items of 'legal expense' amounting to \$355,000; payments to the Erie Company of over \$700,000 for 'items which were mostly corrupt and criminal'; losses incurred by purchasing its own stock in a fraudulent attempt to maintain its value on the stock exchange of over \$1,500,000; allowances to Farwell and Company of \$967,000 for losses incurred for the company in the same project; salaries to directors, forbidden by law, amounting to \$160,000; items of about \$500,000 spent in corruption and bribery in New York City in securing contracts from the Erie Railroad and in bringing about the election of J. S. Eldridge (then president of the Boston, Hartford, and Erie) as president of the Erie road. A majority of the committee of the General Court were nevertheless captured by the argument of Richard A. Dana for the bondholders. Mr. Dana asked: 'Will it alter the export trade of Boston that the ephemeral officers of the road have not done well?' Still under the spell of the western traffic, the General Court actually voted further sums to replace those squandered by the officers of the company. The bill was, however, promptly vetoed by Governor Cladlin." White, *op. cit.*, p. 177, 188-189.

The Board of Railroad Commissioners was finally established in 1869 as a permanent commission to supervise and regulate the railroads and street railways of Massachusetts.²⁷ As created, the board was to consist of "three competent persons" appointed by the governor, "with the advice and consent of the council," for a term of three years.²⁸ The original personnel consisted of "one engineer, one representative of the active business interests of the community, and one person of legal training to act as its mouth-piece, and to attend to its legislative duties."²⁹ The salaries of the commissioners were placed at \$4,000 per annum;³⁰ and all the expenses of the board were to be borne by the railroads.³¹

Under the constitutive act of 1869, the duties of the Board of Railroad Commissioners were in the main those of investigation and publicity, and its powers simply recommendatory as to rates and services.³² The commission was given general supervision over all railroads:³³ it was charged with the examination of all complaints against railroads, and, when these were found to be justified, it could recommend appropriate changes to the railroad;³⁴ it was empowered to investigate violations of the law and report the same to the railroad and to the legislature;³⁵ and

. . . whenever in their judgment any repairs are necessary upon its road, or any addition to its rolling stock, or any addition or change in

²⁷ Mass. Acts of 1869, c. 408.

²⁸ *Ibid.*, § 1.

²⁹ Letter of Charles F. Adams, Jr. to Charles S. Osgood, chairman of the committee on railroads. Mass. House document 225 of 1879.

³⁰ Mass. Acts of 1869, c. 408, § 8. For the frequent changes in the salaries and personnel of the board consult the following acts: 1874, c. 372; 1879, c. 287; P.S. c. 112, §§ 9, 10; 1900, c. 406; 1902, c. 402, c. 432; 1906, c. 417, c. 463, Pt. I, §§ 1, 2; 1910, c. 401.

³¹ "The annual expenses of said board of commissioners, including salaries, shall be borne by the several corporations owning and operating the railroads in this Commonwealth in proportion to the income and profits of said corporations for the year next preceding that in which the assessment hereinafter mentioned is made. And the tax commissioner shall, on or before the first day of July in each year, assess upon said corporations their just proportion of such expenses, which shall be collected from said corporations in the same manner as is provided by law for the collection of taxes upon corporations." Mass. Acts of 1869, c. 408, § 9.

³² For a discussion of the powers and duties of the Massachusetts commission see Whitten, *op. cit.*, Chap. VIII.

³³ Mass. Acts of 1869, c. 408, § 2.

³⁴ *Ibid.*, § 4.

³⁵ *Ibid.*, § 3.

its station or station-houses, or any change in its rate of fares for transporting freight or passengers, or any change in the mode of operating its road and conducting its business, is reasonable or expedient in order to promote the security, convenience and accommodation of the public, said railroad commissioners shall inform such railroad corporation of the improvements and changes, which they adjudge to be proper, . . . and a report of the proceedings shall be included in the annual report of the commissioners to the legislature.³⁶

The commission was also charged with the collection of information relative to the condition, management, and operation of railroads within the state, the roads being required to furnish such information on demand.³⁷ After 1869 the annual reports of the railroads were also addressed to the commission. The board was charged with the investigation of all accidents resulting in personal injury or loss of life and with making reports thereon.³⁸ In 1876 the commission was given authority to examine the books and accounts of railroads to ascertain if they were being kept as prescribed.³⁹ And finally, the commission was required to submit an annual report to the legislature describing its work during the preceding year, with such statements and statistics as should be necessary to indicate the condition of the railroads and railways of the state, and with such recommendations as might be appropriate.⁴⁰

The Massachusetts Board of Railroad Commissioners is the favorite example of the "weak," or recommendatory, type of commission.⁴¹ It will be noted that no mention has yet been made of the method of enforcement of the board's orders. Having reached a decision regarding the subject of any investigation, the commission made a report of its findings to the railroads concerned with any recommendations it considered necessary. But the railroads were not compelled to put into practice the recommendations of the com-

³⁶ Mass. Acts of 1869, c. 408, § 3.

³⁷ *Ibid.*, § 6.

³⁸ *Ibid.*, § 14.

³⁹ *Ibid.*, 1876, c. 185.

⁴⁰ *Ibid.*, 1869, c. 408, § 11.

⁴¹ The popularity of the Massachusetts commission as an example of the so-called "weak" type seems to be responsible for the mistaken idea that Massachusetts was the first state to adopt commission regulation. That similar boards had been previously established in other states was pointed out in the first report of the Massachusetts commission. See 1st Ann. Rep. Mass. R. C. 3 (1869).

mission. It was their legal right to disregard such suggestions if they so desired. The board was forced to rely upon the soundness and wisdom of its recommendations, reinforced by publicity, to secure the adoption of its suggestions by the railroads. Where the railroad or railway was clearly in the wrong and persistently refused to follow the board's recommendations, the commission had a final weapon to coerce the recalcitrant railroad,—it could present its recommendation to the General Court in the form of a bill, or even suggest that the General Court revoke the road's charter. These extreme measures, however, were generally unnecessary since the commission's recommendations were, ordinarily, quite obviously for the best interests of the railroads and the community. That the commission functioned so successfully with such limited power is to be attributed to the ability and intelligence of the commissioners and to the able leadership of Mr. Charles F. Adams, Jr. After the commission had been in existence ten years, Mr. Adams expressed the following opinion of the commission's jurisdiction and power:

Among the duties of the Commissioners, by far the most difficult and delicate are those which arise out of its supervisory functions over questions between the railroad corporations and the community. Its jurisdiction in this respect is, I believe, peculiar to itself. It is compelled to receive all complaints against the railroads of the State, no matter how they may reach it, or to what they may relate, or whether coming from communities or individuals and to investigate and find some remedy for them. In doing this, the Commissioners have no power except to recommend and report. Their only appeal is to publicity. The Board is at once prosecuting officer, judge, and jury, but with no sheriff to enforce its process. This method of railroad supervision is peculiar to Massachusetts, but I do not hesitate to say that I believe it is the best and most effective method that has ever been devised,—the best for the community, and the best for the corporations. . . .

I am very confident that this principle of public supervision might be developed so as to work a complete solution of the railroad problem as it presents itself in this country. To do this, however, it must be developed by men who are not only thoroughly competent, but who enjoy the confidence both of the community and of the corporations.

. . . ⁴²

⁴² Mass. House document 225 of 1879.

The Board of Gas and Electric Light Commissioners

The conditions antecedent to the establishment of the Board of Gas and Electric Light Commissioners differed somewhat from those responsible for the creation of the railroad commission. Illuminating gas was introduced into Massachusetts in 1823 when the Boston Gas Light Company was incorporated by a special act of the legislature.⁴³ The advisability of protecting the gas companies from competition was recognized when the first general law for their incorporation was passed in 1855.⁴⁴ This law contained a provision to the effect that no additional gas company should be incorporated in any city in which a gas company existed unless the company already established had earned, for a period of five years, an annual dividend of seven per cent on its capital stock.⁴⁵ This virtual guarantee of a monopoly as long as dividends were not excessive was withdrawn in 1870,⁴⁶ but practically the monopolies were undisturbed for a number of years.

As in the case of railroads, direct legislative regulation proved to be largely ineffective. The monopoly position of the gas companies and their freedom from control resulted in a demand on the part of gas consumers for their supervision by a commission.⁴⁷ During the eighties, the gas companies began to suffer from the competition of invading companies, and thus they were willing to accept public supervision in return for protection from competition. The whole question was brought to a focus by the water-gas investigation during the course of which there was revealed a close connection between some of the senators and the powerful lobbies of the coal-gas and water-gas companies.⁴⁸

⁴³ Whitten, *op. cit.*, p. 127.

⁴⁴ Mass. Acts of 1855, c. 146.

⁴⁵ Section 1 of Chapter 146 of the Acts of 1855 under which gas companies might be organized, concluded: ". . . provided, that in such towns and cities of this Commonwealth as there may be existing gas companies in active operation, no additional similar corporation shall be organized, unless the parties therein are inhabitants of said town, nor unless the existing corporation shall have realized an annual yearly dividend on their capital stock of seven per cent for a period of five years."

⁴⁶ Mass. Acts of 1870, c. 353.

⁴⁷ White, *op. cit.*, pp. 177, 190-191.

⁴⁸ *Ibid.* For the testimony presented at the hearings see Mass. Senate document 363 of 1884.

The Board of Gas Commissioners was created in 1885,⁴⁹ under circumstances that made for a frank recognition of its dual purpose—to protect the gas companies as well as the consuming public. The board consisted of three members appointed by the governor for a term of three years.⁵⁰ As originally established, the board had jurisdiction over gas companies only. In 1885 electric lights were just being introduced and it was considered inadvisable to place them under the commission's control.⁵¹ The relation between gas and electric light companies became so intimate, however, that the board considered it necessary to discuss electric light companies in its second report.⁵² With the rapid increase in the number of electric light companies and the prevalence of competition between them, it was necessary to give the gas commissioners jurisdiction over electric light companies in 1887.⁵³ In 1914 the board was given the general supervision of water companies.⁵⁴

The powers and duties conferred upon the Board of Gas Commissioners follow quite naturally from the circumstances surrounding its establishment. In general the board was given "summary powers as to rates and service"⁵⁵ of gas, and, later, of electric light companies. In the first place, the commissioners were given the power upon appeal to prevent an invading gas company from laying mains in the streets of a city or town in which an existing gas company was in active operation.⁵⁶ This authority to prevent competition was permissive, not mandatory. Secondly, the board was charged with the investigation of complaints regarding the price or quality of gas, and given the authority, after investigation and hearing, to order a reduction in the price or an im-

⁴⁹ Mass. Acts of 1885, c. 314.

⁵⁰ The number of the commissioners was increased to four in 1898 (Acts of 1898, c. 499) and then reduced to three in 1914 (Acts of 1914, c. 742, § 133).

⁵¹ Whitten, *op. cit.*, p. 129.

⁵² 2d Ann. Rep. Mass. G. & E. L. C. 57 (1886).

⁵³ Mass. Acts of 1887, c. 382. The jurisdiction was extended to cover only the electric light companies, not electric power companies.

⁵⁴ *Ibid.*, c. 787. Practically all the water companies were incorporated by special acts of the legislature; and, until 1914, they were under the jurisdiction of the Commissioner of Corporations.

⁵⁵ Mass. House document 1788 of 1913, at page 56.

⁵⁶ Mass. Acts of 1885, c. 314, §§ 10, 12.

provement in the quality of the gas supplied.⁵⁷ Also a gas company, upon application to the commission, might have the price at which to sell its gas fixed and determined.⁵⁸ As with the railroad commission, it was provided that the annual expense of the board, including salaries, should be borne by the gas companies in proportion to their gross earnings.⁵⁹ And finally the board could require reports and annual returns from the companies under its jurisdiction.⁶⁰

The Public Service Commission

The Public Service Commission, the third of the Massachusetts Commissions, was established in 1913 to replace the Board of Railroad Commissioners. The creation of the new Public Service Commission was due directly to the inadequacy of the later railroad commission to cope with the problems confronting it.⁶¹ The duties of the railroad commissioners had increased steadily so that they were no longer able to function effectively,—in particular the acts of 1894 relative to the issue price of securities had buried them under a mass of detailed routine work. The Board of Railroad Commissioners, it will be remembered, was a commission of the "weak" type, and apparently the public no longer had any particular confidence in it. This loss of public confidence may have been due in part to the contrast presented by the board's position with the positions occupied by the powerful commissions created

⁵⁷ Mass. Acts of 1885, c. 314, § 9, Inasmuch as this section of the law remains the provision under which most rate cases are brought before the commission, it is worth while to quote it *in extenso*. "Upon the complaint in writing of the mayor of a city or the selectmen of a town in which a gas company is located, or of twenty customers of such company, either of the quality or price of the gas sold and delivered by such company, the board shall notify the company of such complaint by leaving at their office a copy thereof, and shall thereupon after notice give a public hearing to such petitioner and such company, and after said hearing may order if they deem just and proper, any reduction in the price of gas or improvement in the quality thereof, and they shall pass such orders and take such action as are necessary thereto, and a report of the proceedings and the result thereof shall be included in their annual report to the legislature."

⁵⁸ *Ibid.*, 1888, c. 350.

⁵⁹ *Ibid.*, 1885, c. 314, § 6.

⁶⁰ *Ibid.*, § 7.

⁶¹ For a brief summary of the conditions antecedent to the establishment of the Public Service Commission, as well as for a survey of its powers, see J. B. Eastman, "The Public Service Commission of Massachusetts," *Quarterly Journal of Economics*, XXVII (August, 1913), 699.

by many of the other states; but in the main, it was due to the demonstrated inability of the board to cope with the railroad situation. The repeated delinquencies of the New Haven road had convinced both the people and the legislature of the necessity for a more powerful commission. And finally, when confronted with a stronger commission as the alternative to the compulsory separation of the New Haven from the Boston and Maine, the railroads decided to lend their support to the former measure.

As created by the act of 1913, the Public Service Commission consisted of five members: the three railroad commissioners plus two new members appointed by the governor.⁶² The term of office was increased to five years, one member's term expiring each year. There was also an advance in the salaries of the commissioners, the chairman receiving \$8,500, and the others \$8,000 annually.⁶³

The jurisdiction of the commission was enlarged so that the new Public Service Commission was charged with the general supervision and regulation of all common carriers including railroads, street railways, steamship lines, express and car service companies, and telephone and telegraph companies.⁶⁴ To enable it to discharge its duties effectively, the commission was given the power to employ legal, and such other, assistance as it should require⁶⁵ and to spend such moneys in the performance of its duties as the legislature should annually appropriate.⁶⁶ The increased control of rates and fares given to the Public Service Commission marked the transition from the old "weak" type of commission to the present "strong" commission such as is found in practically all the states.⁶⁷ In the matter of enforcement of its orders, the commission's position was strengthened. It was pro-

⁶² Mass. Acts of 1913, c. 784, § 1. The number of commissioners was reduced to three by Chap. 283 of the Acts of 1918.

⁶³ The previous salaries had been \$6,000 for the chairman and \$5,000 for the commissioners.

⁶⁴ Mass. Acts of 1913, c. 784, § 2. Telegraph and telephone companies had previously been under the jurisdiction of the highway commission. The Board of Gas and Electric Light Commissioners retained their jurisdiction over gas and electric light companies.

⁶⁵ *Ibid.*, § 9.

⁶⁶ *Ibid.*, § 8.

⁶⁷ As with the discussion of the Board of Railroad Commissioners and the Board of Gas and Electric Light Commissioners, the consideration of control over security issues and over rates is reserved for Chaps. II and III, respectively.

vided that every order of the commission should take effect at a time specified in the order;⁶⁸ and in case its orders were not obeyed, the commission might apply to the Supreme Judicial Court to enforce them.⁶⁹ Also the Supreme Judicial Court was given jurisdiction "to review, annul, modify or amend" any orders of the commission which were unlawful "to the extent only of such unlawfulness," the burden of proof in all such cases being upon the party adverse to the commission.⁷⁰ Furthermore, the commission had power to examine books,⁷¹ to prescribe forms of accounts,⁷² to inspect the property of common carriers,⁷³ and to make a valuation thereof when necessary.⁷⁴ Finally, it was given the power to appear before other state commissions or before the Interstate Commerce Commission when such action might promote the interests of the commonwealth.⁷⁵

The Department of Public Utilities

In 1919, the Board of Gas and Electric Light Commissioners and the Public Service Commission were both abolished: and in their stead, there was established a Department of Public Utilities.⁷⁶ The department was placed under the control of a commission of five members appointed by the governor for a term of five years.⁷⁷ The salaries were not to exceed \$8,000 per annum for the chairman, and \$7,000 per annum for the commissioners.⁷⁸ This change was simply in the form of organization of the regulatory machinery for purposes of economy and efficiency. All the powers and duties of the two earlier commissions were transferred to the department,⁷⁹ which was given jurisdiction over the same classes

⁶⁸ Mass. Acts of 1913, c. 784, § 26.

⁶⁹ *Ibid.*, § 28.

⁷⁰ *Ibid.*, § 27. This section also provided that all proceedings to which the commission was a party should have precedence over all other civil proceedings pending, except election cases. It provided, furthermore, for the assessment of double costs upon any party "whose petition shall appear to the court not to be a fit subject for judicial inquiry or shall appear to be intended for delay."

⁷¹ *Ibid.*, § 11.

⁷² *Ibid.*, § 12.

⁷³ *Ibid.*, § 13.

⁷⁴ *Ibid.*, § 14.

⁷⁵ *Ibid.*, § 10.

⁷⁶ *Ibid.*, 1919, c. 350, § 117.

⁷⁷ *Ibid.*, § 118.

⁷⁸ *Ibid.*

⁷⁹ "All the rights, powers, duties, and obligations of said commission and said board are hereby transferred to and shall hereafter be exercised and performed by the department of public utilities established by this act, which shall be the lawful successor of said commission and said board." *Ibid.*, § 117.

of corporations previously subject to the earlier commissions.⁸⁰ As with the previous commissions, it was provided that the General Court should make such annual appropriation for expenses as should be considered necessary or desirable.⁸¹

⁸⁰ "The different classes of corporations now subject to the jurisdiction of the public service commission and the board of gas and electric light commissioners, respectively, and which under the provisions of this act will become subject to the jurisdiction of the department of public utilities, shall continue to be subject to the provisions of law applicable to them, respectively, and to such provisions as are applicable to all of them alike. This act shall not be deemed to affect the said provisions except as to their administration." *Ibid.*, § 120.

⁸¹ *Ibid.*, § 122.

CHAPTER II

STATUTORY CONTROL OVER SECURITY ISSUES

Introduction

THIS chapter is devoted to a consideration, from a historical point of view, of the statutory limitations on the issue of securities by public service corporations in Massachusetts. Since the Massachusetts policy with respect to security issues is disclosed primarily in legislative acts, a study of the statutory restrictions embraces all of the important phases of the control of the issuance of securities and the capitalization of public utilities. Massachusetts' experience in regulating security issues is significant and important for a number of reasons. It possesses some historical interest since Massachusetts was the first state to undertake the systematic control of the issue of securities by public utilities.¹ In addition, Massachusetts' regulation has been extremely thoroughgoing and detailed; investigations have been conducted into, and reports made upon, all aspects of the matter. And, finally, since the regulation of security issues forms "the very corner stone of public regulation," it is essential to have a complete understanding of this phase of the Massachusetts policy before approaching a consideration of the regulation of rates. The theory and policy of this rate regulation follow from, and are based upon, the regulation of security issues. It has been well stated that the "control of capitalization is a highly desirable, if not an indispensable, concomitant of governmental regula-

¹ C. J. Bullock, "Control of Capitalization of Public Service Corporations in Massachusetts," *Publications of the American Economic Association*, 3d series, X (1909), 384. Professor Bullock was the first to make a study of the control of security issues of public utilities in Massachusetts, and his article is, to my knowledge, still the best treatment of the early phases of this subject.

In addressing the National Association of Railway Commissioners in 1917, Mr. F. J. Macleod, of Massachusetts said: "Massachusetts has been the pioneer State in the regulation of public service securities, and we still regard it as the very corner stone of public regulation." *Pro. Nat. Assn. Ry. Commrs.* (1917), 425.

tion of the operation and charges of public service corporations.”² This truth was recognized at an early date in Massachusetts, before any very considerable development of public utilities, and the long period of regulation of capitalization must be taken as the starting point for any appreciative consideration of its policies of rate regulation.

Securities Subject to Regulation

The securities of public utilities which are subject to regulatory control are stocks—common and preferred—bonds, coupon notes, and other evidences of indebtedness payable at periods of more than one year from the date thereof. The exemption of short-term notes, i.e., those payable at less than one year from the date thereof, is almost universally included in all provisions for the public regulation of security issues. Of course, issues by foreign corporations are exempt from regulation even though they may be carrying on business in Massachusetts, although the Massachusetts commission must be notified of the details of the issue if part of the proceeds are to be expended in Massachusetts.³ Issues, or parts of issues, to provide funds to be expended outside of Massachusetts are exempted from the necessity of securing the approval of the Massachusetts commission; but before the issue of such securities, the details of the issue, with the authority therefor, must be reported to the commission.⁴ Since 1920, securities issued by interstate railroads have been wholly beyond the jurisdiction of state commissions.⁵

² Bullock, *op. cit.*, p. 384. Prof. Bullock goes on to add: “Legislatures or commissions may act without regard to outstanding securities, and courts may pass upon the reasonableness of such action without considering the capitalization of the corporations affected by it. But it is clear that some problems can be greatly simplified and certain difficulties wholly avoided if our legislation proceeds upon the principle of locking the door of the stable before the horse strays or is stolen.”

³ The term “foreign corporation” refers to a company incorporated under the laws of a state other than the state concerned; in this case, a corporation incorporated in a state other than Massachusetts.

⁴ Mass. Acts of 1913, c. 784, § 16.

⁵ Interstate Commerce Act, section 20a. (Added February 28, 1920.) Paragraph (7) reads: “The jurisdiction conferred upon the Commission by this section shall be exclusive and plenary, and a carrier may issue securities and assume obligations or liabilities in accordance with the provisions of this section without securing approval other than as specified herein.”

Purposes for Which Securities May Be Issued

Securities of any description may be issued only for lawful purposes. For corporations generally, these lawful purposes are contained in their charters or in the general incorporation laws under which they receive their charters. In the case of public utilities, not only are the purposes for which securities may lawfully be issued specified at considerable length; but the regulatory commissions are charged with the duty of assuring the compliance of the utilities with such restrictions. In Massachusetts, the jurisdiction of the commission is more extensive in that the commissioners may specify the purposes for which securities may be issued. The purposes for which railroads and other public utilities incorporated in Massachusetts may issue securities are enumerated at considerable length throughout the statutes relating to such corporations. For example, the law provides that the capital stock of a railroad may be increased

. . . for the purpose of building a branch or extension, or of aiding in the construction of another railroad, or of taking stock in a grain elevator corporation in the organization of which it is an associate or of building depots, or of abolishing grade crossings, or of making permanent investments or improvements, or of funding its floating debt, or of refunding its funded debt, or for the repayment of money borrowed for any lawful purpose or for other necessary and lawful purposes. . . .⁶

In 1894, it was enacted that no stock or bonds of railroads should be issued unless the railroad commissioners voted them to be reasonably necessary for the specified lawful purposes.⁷ Three years later these provisions were extended to cover issues of coupons, notes, and other evidences of indebtedness payable at periods of more than twelve months after date.⁸ Similarly, the purposes for which other utilities may issue securities were restricted and placed under the supervision of the appropriate regulatory commission.

There have been certain purposes for which the Massachusetts

⁶ Mass. G. L., c. 160, § 41. See also Mass. Acts of 1874, c. 351; c. 372, § 48; c. 384, § 1; P.S., c. 112, § 60; 1894, c. 502; 1906, c. 463, Pt. II, § 258.

⁷ Mass. Acts of 1894, c. 462. See also *Buckley v. N.Y., N.H., & H.R.R. Co.*, 216 Mass. 432, 436 (1914).

⁸ Mass. Acts of 1897, c. 337.

commissions have refused to approve the issuance of securities. They have refused to allow the issue of securities to provide for the discount on bonds or for the compensation of promoters.⁹ The attitude of the Massachusetts commissions on the issuance of securities to provide working capital has not been clearly defined; but they have been inclined to disfavor issues for this purpose.¹⁰ Since 1909 the street railways have been allowed to issue capital stock in amount not to exceed five per cent of the par value of that outstanding, or bonds to provide working capital.¹¹ The Massachusetts commissions have consistently refused to approve of the issue of securities to capitalize surplus.¹²

⁹ Bullock, *op. cit.*, pp. 396-397.

¹⁰ In his discussion, Prof. Bullock states that the Massachusetts policy concerning security issues to provide working capital is not easy to understand. Bullock, *op. cit.*, p. 397. See also Barron, M. L., *State Regulation of the Security Issues of Railroads and Public Service Companies*, at page 18; "Working capital falls under this division. The Massachusetts Railroad Commission refused to authorize securities for this purpose. To meet the special need of street railways, a law was passed permitting the issue of stock to provide working capital not to exceed 5 per cent of outstanding stock, or an issue of bonds to an amount determined by the commission."

¹¹ Mass. Acts of 1909, c. 485; G. L., c. 161, § 26.

¹² The Board of Gas and Electric Light Commissioners has been most prominent in the rejection of reinvested earnings as a basis for security issues. For expressions of the attitude of this board see the following cases: Edison Electric Illuminating Company (Fall River), 11th Ann. Rep. Mass. G. & E. L. C. 20 (1895); Malden & Melrose Gas Light Company, 11th Ann. Rep. Mass. G. & E. L. C. 29 (1895); Haverhill Gas Securities Company, 15th Ann. Rep. Mass. G. & E. L. C. 6 (1899); Haverhill Gas Light Company, 16th Ann. Rep. Mass. G. & E. L. C. 9 (1900); Haverhill Gas Company, 27th Ann. Rep. Mass. G. & E. L. C. 79 (1911); Fall River Gas Works Company, 28th Ann. Rep. Mass. G. & E. L. C. 98 (1912).

The decision in the Fall River Gas Works Company case in which the commission refused to approve of securities to provide funds for additions because the company had just previously distributed a substantial part of its surplus as an extra dividend, was reversed by the Massachusetts Supreme Judicial Court in *Fall River Gas Works Company v. Board of Gas and Electric Light Commissioners*, 214 Mass. 529 (1913). At pages 538 and 539, the court said, in substance, that it was not within the board's power to dismiss an application for the approval of an issue of additional capital to meet liabilities incurred in increasing the efficiency and value of a gas plant merely because, at the time when such liabilities were incurred, the company had on hand a surplus of undivided profits sufficient to meet such liabilities, which, before making the application, the company lawfully distributed as dividends.

The position of the Public Service Commission was stated in the Highland Telephone Company case, 5th Ann. Rep. Mass. P. S. C. 304, P. U. R. 1917 F,

Control of Stock Issues at the Incorporation of a Utility

Massachusetts has exercised a strict supervision over the issue of securities at the inception of a public service corporation in order to insure an equivalence between the par value of the stock issued and the amount of money received therefor.¹³ For corporations generally, organized after 1860, save for those types specifically excepted,¹⁴ the law fixed the par value of their stocks at \$100.¹⁵ In that year, it was provided that corporations previously organized with a par value of their stock in excess of \$100 should divide their capital stock into equal shares with a par value not exceeding \$100.¹⁶ In the General Laws of 1921, however, no expressed requirement was made with regard to the par value of the stock of public service corporations, so presumably their shares may have a par value equal to \$100 or any smaller sum, not less than \$25. In 1924, it was specifically provided that the par value of the shares of an electric railway might be \$100, \$50, or \$25, as the Department of Public Utilities might provide.¹⁷ It is also possible for a utility to change the par value of its shares, provided

853 (1917), where it held that an issue of stock was reasonably necessary for the funding of the cost of additions and betterments in so far as their cost had been met from borrowed funds, but not in so far as it had been met out of surplus accumulations. It might be added that the company had been in existence only ten years and that, although it had paid no dividends for some years past, it held notes and accounts receivable sufficient to pay a dividend of nearly 80 per cent upon the par value of its outstanding stock.

¹³ The question of the regulation and supervision of security issues subsequent to the incorporation of a utility is considered below.

¹⁴ These exceptions included the following: herring fisheries (Acts of 1866, c. 187); coöperative associations (*Ibid.*, c. 290); and corporations organized for the purpose of carrying on any lawful business "except buying and selling real estate, banking, insurance, and any other business the formation of corporations for which is otherwise regulated by these statutes" (P.S., c. 106, § 14). The par value of the shares of these corporations might be \$100, or any smaller sum not less than \$25 (Acts of 1894, c. 500).

¹⁵ Mass. Acts of 1860, c. 128; 1867, c. 131; 1870, c. 224, § 7; 1873, c. 37, §§ 1, 2; P.S., c. 105, § 16; 1894, c. 500; G. L., c. 155, § 16.

¹⁶ Mass. Acts of 1860, c. 128. The fact that this enactment seems not to have affected the capital structure of many of the companies was probably due to the final section which provided that the requirement should not be obligatory upon corporations, the par value of whose shares could not be divided into shares of \$100 each without leaving a surplus.

¹⁷ *Ibid.*, 1923, c. 491, § 2.

the aggregate par value of its outstanding stock is not thereby increased.¹⁸

The decision as to the number of shares of capital stock to be issued at the incorporation of a utility seems to have been left to the judgment of the directors, subject, however, to the limitations specified in the corporation's charter or to the provisions of law applying to such corporations.

It has long been a prominent part of the Massachusetts policy to require that no shares be issued for a less sum in cash than their par value.¹⁹ Until recently the only exceptions that have been made to these provisions, aside from special authorizations from the legislature, have been in the case of manufacturing and mercantile corporations, and water and aqueduct companies.²⁰ Since 1875, manufacturing and other corporations, except those subject to specific restrictions to the contrary, have been permitted to accept real or personal property at a fair valuation in payment for their capital stock.²¹ In all such cases, there must be filed with the secretary of the commonwealth a statement, signed and sworn to by the president, treasurer, and a majority of the directors of the corporation, giving a description of the property and the value at which it has been accepted in payment for stock.²² Under certain conditions, the conveyance of property may be deemed sufficient payment of the capital of aqueduct and water companies.²³ Cash has been the only lawful form of payment for the capital stock of railroads since 1852.²⁴ From 1868 to 1914, there were similar restrictions upon gas and electric light companies; but in the latter year, it was provided that the conveyance of real or per-

¹⁸ The provision applicable to gas and electric companies may be found in the following: Mass. Acts of 1914, c. 742, §§ 29, 199; G. L., c. 164, § 8.

¹⁹ Mass. Acts of 1851, c. 133, § 16; 1859, c. 104; 1871, c. 392, § 3; P.S., c. 105, § 17, c. 106, § 41; G. L., c. 155, § 17.

²⁰ Bullock, *op. cit.*, p. 385.

²¹ Mass. Acts of 1875, c. 177; R. L., c. 110, § 44.

²² *Ibid.*

²³ Mass. Acts of 1894, c. 380, § 2.

²⁴ Mass. Acts of 1852, c. 303. See also Acts of 1868, c. 310; 1871, c. 889; 1894, c. 350; 1906, c. 463, Pt. II, §§ 63, 258. For similar provisions of law applicable specifically to street railways in addition to the provisions covering all corporations, see Mass. Acts of 1864, c. 229, § 6; 1871, c. 381, § 7; P.S., c. 113, § 13; 1894, c. 350; 1906, c. 463, Pt. III, § 26, 158.

sonal property might be deemed a sufficient paying in of the original stock to an amount approved by the Board of Gas and Electric Light Commissioners.²⁵

To give additional assurance that public utilities would be provided with adequate capital to assure their success, it has been a long-established feature of the Massachusetts practice to require the filing with the proper state official of a certificate specifying that the capital stock had been subscribed and partly, or completely, paid in cash. Thus before undertaking construction, the directors of street railways are required to certify that the capital stock has been fully subscribed and that fifty per cent of the par value of each and every share has been paid in cash.²⁶ Likewise the capital of gas and electric light companies must be paid in before the company commences business.²⁷ With telephone and telegraph companies, three-quarters of the capital stock must be unconditionally subscribed for and at least one-half must be paid in in cash.²⁸ To insure compliance with these provisions, it was provided that the directors should be held jointly liable for debts and contracts until the payment in full of the capital stock was made.²⁹

The strictness of the above limitations surrounding the issue of capital stock at the incorporation of a utility, however, has not always sufficed to secure even an initial equivalence between assets and the aggregate par value of securities issued. This was particularly true during the early history of the commissions. False

²⁵ Mass. Acts of 1914, c. 742, § 36. See also Haverhill Gas Light Company, 28th Ann. Rep. Mass. G. & E. L. C. 41, 56 (1912).

²⁶ Mass. G. L., c. 161, § 3. See also Acts of 1864, c. 229, § 6; 1871, c. 381, § 6; P.S., c. 113, § 19. The early provisions differed somewhat from the present; for example, the enactment of 1864 provided for the filing of a certificate before the road was commenced stating that "the amount of capital stock so fixed, which shall in no case be less than one-half the amount authorized by its charter, has been unconditionally subscribed for by responsible parties, and that 50 per cent of the par value of each and every share of the same has been paid in cash."

²⁷ Mass. G. L., c. 164, § 20. See also Mass. R. L., c. 110, §§ 58-63; 1906, c. 463, Pt. III, § 29.

²⁸ Mass. Acts of 1851, c. 247, § 3; G. S., c. 64, § 7; G. L., c. 166, § 1.

²⁹ For examples, see the provisions applicable to street railways: Mass. Acts of 1864, c. 229, § 6; 1871, c. 381, § 7; P.S., c. 113, § 14; 1906, c. 463, Pt. III, §§ 29, 158; G. L., c. 161, § 24.

statements were made on the certificates filed by the directors. The provisions of the law were evaded by the incorporators borrowing the necessary money temporarily—frequently from the contractor who was usually a large stockholder also—going through the form of passing it into the corporate treasury in nominal payment of subscriptions on stock, and then handing it back instantly to those from whom it was borrowed in the settlement of purely nominal claims for work done or services rendered.⁸⁰

The restrictions imposed upon the issue of securities at the organization of public service corporations seem to have aroused no serious adverse criticisms. Even where there are frequent evasions, such provisions have a beneficial effect and presumably do aid in keeping stock-watering at a minimum. In its report to the general court in 1908, the Commission on Commerce and Industry summarized its opinion of these provisions as follows:

So far as concerns the laws which govern the inception of these corporations, and which prevent stock-watering by requiring full payment of par value in cash as a condition for the issue of stock, the commission has heard little criticism, and is satisfied that these requirements are salutary. . . . No public-service corporations bear a higher reputation as safe and conservative investments than those of Massachusetts, and

⁸⁰ 8th Ann. Rep. Mass. R. C. 43 (1876). The board commented further at pages 43 and 44: "The difficulty arises from a practice which has grown up under which contractors undertake to build railroads on speculation,—they practically subscribing for all the stock, upon which little or nothing is intended to be paid in, while the road is being built on the proceeds of the sale of the company's bonds. The whole process from beginning to end is thoroughly evasive of law at every step, and yet there is nothing technically illegal about it. In the first place the stock is subscribed for,—a sufficient number of persons who want to have a road built agreeing to take one or a few shares each. In case, for instance, a thousand shares are to be placed, these persons will take perhaps one hundred, while the contractor assumes the other nine hundred. He then pays in the assessments as they are called on the stock in cash; receiving his money directly back in payment for work done under his contract at nominal prices. In due time a mortgage is executed on the property, and bonds are placed on the market supposed to be secured by a paid-in capital stock, which in fact never was paid in. The road is finally completed, having practically been paid for out of the sale of the bonds, while the contractor holds the stock, if he cannot dispose of it, as a matter of speculation, for what it may prove to be worth." Judging from this statement, the building of the railroads in Massachusetts was financed very much as they were in other parts of the country where the restrictions were much less severe.

her laws which prevent watering stock by an issue for less than par, and provide for supervising financial management, are generally accepted as models of wise State control, administered as they are by boards of commissioners free from suspicion of political influence or bias.³¹

Limitations on the Increase of Capital Stock

The restrictions imposed upon the increase of their capital stock by corporations already organized and in active operation have proved the most fruitful source of dispute and discussion as to the principles involved. Little was said in the early statutes as to the procedure to be observed in the issue of additional capital stock.³² So long as the issue was for purposes permitted by the charter and did not exceed the amount of capital authorized by law, the stock could be issued simply on the vote of the stockholders of the corporation.³³ In 1874, it was provided that the approval of the Board of Railroad Commissioners should be necessary when a street railway sought to increase its capital beyond the limits fixed by the articles of association or the acts of the legislature, and that the company must file a certificate stating the amount of such increase with the secretary of the commonwealth.³⁴ Since 1894, the approval of the railroad commission or its successors had been required in the case of corporations subject to its jurisdiction for the issuance of all stocks and evidences of indebtedness payable at periods of more than a year from the date thereof.³⁵ Similar restrictions were also imposed upon other public utilities. One of the earliest regulations regarding the increase of capital stock was that the par value of the subsequently issued stock should be equal to the par value of the shares first issued or, if the par value had been subsequently changed, to the

³¹ Mass. General Court. *Report of Commission on Commerce and Industry* (1908), p. 57.

³² *Fall River Gas Works Company v. Board of Gas and Electric Light Commissioners*, 214 Mass. 529, 534 (1913).

³³ Mass. Acts of 1830, c. 53, § 3; R. S., c. 38, § 11; 1864, c. 229, § 7.

³⁴ Mass. Acts of 1874, c. 29, § 15; 1887, c. 366.

³⁵ *Ibid.*, 1894, c. 462, §§ 1, 2; 1897, c. 337, § 1; 1906, c. 463, Pt. II, §§ 65, 258; 1912, c. 725, Pt. II, § 4; 1913, c. 724, § 16.

par value of the shares outstanding.³⁶ Following a usual course, this restriction was placed upon railroads first, and later extended to apply to other utilities.

The regulation of the issue price and method of disposing of an increase of stock has passed through several stages; and, at each stage, the restrictions have aroused much criticism.³⁷ Prior to 1851 there seems to have been no regulation by a general law. It seems to have been a recognized principle, however, that issues of stock would be at par. In 1849 a legislative committee reported that expediency did not require that a general law be passed prohibiting railroads from issuing stock for less than par.³⁸ Nevertheless, it was shortly provided that public utilities should issue no additional shares for a less sum, to be paid in cash, than the par value of the shares first issued, unless so authorized by special act of the legislature.³⁹ In 1870, a general law governing the increase of capital stock was passed; and the application of these principles was extended to all corporations.⁴⁰ Before the enactment of this general law, each case was seemingly dealt with by a

³⁶ See *Ibid.*, 1851, c. 133, §§ 8, 16; 1858, c. 167; 1859, c. 104. This provision also appeared in the special act of 1853 under which the Haverhill Gas Light Company was incorporated. See 25th Ann. Rep. Mass. G. & E. L. C. 41, 55 (1912).

³⁷ For treatments of this phase of the Massachusetts regulatory policy see the following: Bullock, *op. cit.*, p. 384. G. Calkins, "The Massachusetts Anti-Stock-Watering Law," *Quarterly Journal of Economics*, XXII (August, 1908), 640. *Report of Commission on Commerce and Industry* (1908), pp. 57-69. *Fall River Gas Works Company v. Board of Gas and Electric Light Commissioners*, 214 Mass. 529, 539 *et seq.* (1913).

³⁸ Mass. House document 75 of 1849. "To the committee, it appears that an issue of stock, at a depreciated price, when it is really worth par, will never take place in the absence of fraud, and that when it is issued at less than its par value, it will be in a case where it is necessary to make such an issue to pay debts actually existing, or to provide for engagements which the progress of the undertaking renders unavoidable, so that the question presents itself: Will the Legislature, to take the doctrine of the instructions, prevent a corporation from meeting its engagements with the public and with its creditors, by withholding the means whereby it can discharge itself from embarrassment?"

³⁹ Mass. Acts of 1851, c. 133, §§ 8, 16; 1858, c. 167; 1859, c. 104; G. S., c. 61, §§ 6, 9.

⁴⁰ Mass. Acts of 1870, c. 179. Coöperative associations exempted by chapter 109 of Acts of 1871.

special act of the legislature.⁴¹ During this period the right of the stockholders to participate in new issues was recognized.⁴² Each stockholder was permitted to take at par his proportion of the new issue. Any shares not so taken by the stockholders might be sold by the directors at public auction; but the law provided that "all premiums realized from such sales, shall be paid to such stockholders, or their legal representatives, as have not availed themselves of their right to take the new stock. . . ."⁴³ This provision recognized specifically that the premiums upon his proportionate part of the new issue were the stockholder's property and not the corporation's.

In 1871, however, a radical change was made with the passage of a law which required railroads, when the market value of their stock was above par, to offer the new shares for sale at public auction.⁴⁴ The same act provided that any corporation duly authorized to increase its capital stock might sell its shares at public auction.⁴⁵ This provision as applied to corporations generally was permissive not mandatory. Two years later, the mandatory provisions governing the increase of capital stock of railroads were extended to apply to street railways⁴⁶ and gas companies.⁴⁷ All of these enactments expressly stated that nothing therein contained was to be taken as authorizing the sale of stock at less than par; and in order that the market price might not be depressed, the number of shares to be offered for sale in any one day was limited to 2,000.⁴⁸ The obvious purpose for this change of policy was the desire to force the sale of new stock at the highest possible

⁴¹ *Report of Commission on Commerce and Industry* (1908), p. 58. Bullock, *op. cit.*, p. 399.

⁴² Mass. Acts of 1864, c. 229, § 7; 1870, c. 179.

⁴³ *Ibid.*, 1870, c. 179.

⁴⁴ *Ibid.*, 1871, c. 392, § 1. "A railroad corporation authorized to increase its capital stock or to issue additional shares of stock for any purpose, shall, if the cash market value of its shares exceeds the par value thereof, sell and dispose of all shares of such new or additional stock for the benefit of the corporation in the manner provided in this act [i.e., by public auction]; and only such number of shares shall be issued as, so sold and disposed of, will produce the amount necessary for the purposes for which such increase or issue is duly authorized by law."

⁴⁵ *Ibid.*, § 4.

⁴⁶ *Ibid.*, 1873, c. 305.

⁴⁷ *Ibid.*, c. 39, c. 333.

⁴⁸ *Ibid.*, 1871, c. 392; 1873, c. 39, c. 305.

price, appropriating the premiums for the benefit of the corporation. By so doing, the number of outstanding shares would be kept at a minimum, and thus, it was hoped, the rates charged would be kept as low as possible.⁴⁹ It was only an incidental effect that the hitherto valuable stockholders' rights were practically destroyed.

The provision for the sale of new shares at public auction aroused a good deal of opposition and adverse criticism. Four principle objections developed: First, it deprived the stockholders of their traditional right to the first offer of any increase in the stock of their own corporation.⁵⁰ Second, it deprived the stockholders of all the benefit of the premium and hence deprived them of their lawful property, since the premium usually arises from the presence of a corporate surplus which belongs *pro rata* to the shareholders.⁵¹ Third, the sale of large blocks at public auction involved the risk that outside and adverse interests might gain control of the corporation.⁵² Finally, it was urged, the law tended to discourage investment in new undertakings and to restrict the development and expansion of established enterprises by making it difficult, if not impossible, to secure needed capital; the investors in the comparatively undeveloped enterprises were left to bear all the risks of failure without the compensating possibility of being in a favored position with regard to "rights" to new shares if the company proved successful.⁵³

The first three criticisms dealt with self-evident defects in the law from the point of view of the stockholders of the company and were very probably justified. However, it is difficult to understand why the provision for the sale of new issues of stock at auction should have either hindered or prevented a company from secur-

⁴⁹ "The object had in view in passing that Act was very apparent: it was to cause the full market value, being not less than par, of any issue of new capital stock of railroad corporations, to be paid into the treasury of the corporations, instead of the par value only of the stock as provided in chapter 179 of the Acts of 1870; the object being to keep down the amount of dividend bearing stock of railroad companies to the lowest point consistent with the production of the amount of money necessary to accomplish any purpose." 3d Ann. Rep. Mass. R. C. xix (1871).

⁵⁰ Calkins, *op. cit.*, p. 644.

⁵¹ *Report of Commission on Commerce and Industry* (1908), p. 68.

⁵² *Ibid.*

⁵³ Bullock, *op. cit.*, p. 399.

ing new capital. Whenever a commodity is offered for sale at auction, the price is automatically adjusted, by the machinery of the auction, to the sum which prospective purchasers are ready and willing to pay. Even when the market price of a corporation's stock has been declining, there would seem to be no reason why new stock could not be sold at auction. In actuality, the chief difficulty with the auction requirement was probably the reluctance of the contemporary stockholders to pay the full market price for new issues of stock and their fear lest the control of the company should pass from their hands, rather than absolute inability on the part of the company to market the additional stock. Thus while the law might with propriety be criticized on the ground that it made the companies unwilling and reluctant to attempt to raise new capital under such stringent requirements, it does not seem possible accurately to maintain that the restrictions rendered the utilities unable to raise funds. Nevertheless, it was the danger that investment in Massachusetts utilities might be prejudiced which caused the Board of Railroad Commissioners to question vigorously the wisdom of the enactment:

In this respect the law was a reversal of the long-established policy of the Commonwealth as regards its railroad corporations. The theory of our legislation hitherto has been that the State needed both new railroads and the most complete development of all old railroads; the full accomplishment of both objects require large investments of private capital, upon which the Commonwealth guaranteed no certain return, but it authorized a return not exceeding ten per cent per annum, if as much could be earned; in other words, a possible return of ten per cent was held out to induce private capital to enter into railroad enterprises; and this amount, if it could be earned, the law declared the community willing to pay.⁵⁴ There is not a railroad in Massachusetts of any gen-

⁵⁴ Bullock, *op. cit.* In a footnote beginning on page 399, Professor Bullock gives the following explanation of the "ten per cent" provision: "The early charters had expressly authorized profits of eight or ten per cent. The Revised Statutes of 1836 stipulated that tolls would not be reduced by the state below a figure yielding ten per cent on the capital invested. Chap. 39, § 83. This provision appeared in the General Statutes of 1860 (Chap. 63, § 112), but was repealed by the general railroad act of 1874 (Chap. 372 of 1874, § 179)." Since 1874 there has been no statute restricting the power of the Legislature to reduce rates other than the constitutional protection against the enforcement of confiscatory rates.

eral importance which does not stand in urgent need of additional large outlays to accommodate the growing business wants of the community. Especially is this the case with the lines terminating in Boston, without any exception; the growth of the community imperatively calls for liberal outlays on the part of all of them. The former policy of the Commonwealth, by holding out a prospect of ten per cent dividends on the new capital necessary to effect these needed developments, offered a strong inducement to the stockholders of the corporations to adopt a liberal policy and go energetically forward with it. The Act of 1871, in its practical operation, cuts off this inducement by limiting the return of new capital invested in the development of all the leading lines of the State, not at ten per cent but at ten dollars per annum on the market value of the stock of such companies, thus reducing the return on new capital from ten to eight and even seven per cent. Less inducement is thus held out to private capital to seek investment in the railroad system of Massachusetts than in any other State of the Union. In all of these, the law authorizes a possible return of ten per cent as a minimum, and in many the limit is fixed much higher. It is, therefore, a matter of consideration whether the Act under discussion, by reducing the possible return to so low a point, will not cause those managing the corporations to become indifferent to a further development, which cannot accrue to their own advantage, and to divert their capital to other quarters where it will be more liberally remunerated.⁵⁵

In spite of the adverse criticism from official as well as lay sources, it was not until 1878 that the railroads were successful in securing the repeal of the requirement that all new stock should be disposed of at public auction. In that year it was provided that, if the directors so decided, the stockholders of railroad corporations should be given the right to subscribe at par for their proportional part of any additional stock authorized.⁵⁶ Any stock not taken by the stockholders might be sold at public auction.⁵⁷ In 1879, these provisions were extended to apply to street railways.⁵⁸ Under these laws, the railroads and street railways could dispose of additional stock at a price above par only by offering it at pub-

⁵⁵ 3d Ann. Rep. Mass. R. C. xix-xx (1871).

⁵⁶ Mass. Acts of 1878, c. 84, § 1; P.S., c. 112, § 58.

⁵⁷ Mass. Acts of 1878, c. 84, § 2.

⁵⁸ *Ibid.*, 1879, c. 90.

lic sale.⁵⁹ Any shares not so taken by the stockholders might be sold at public auction, but at not less than par.⁶⁰ These changes left the law, as applied to railroads and street railways, as it stood before 1871; and thus reëstablished, it remained in force until 1893. These enactments were not extended to cover gas companies—presumably because they had not been so adversely affected by the provisions as had the railroads and street railways—and the provisions of the law of 1873, requiring all additional stock to be sold at public auction, remained in force.⁶¹

The provision that increased stock shall be issued to stockholders only at par has been subject to two criticisms.⁶² It has been suggested that it was unfair to the corporation in that it was deprived of the premium which the stock might have brought at a public sale. This argument overlooks the fact that the premium is the property of the stockholders; and that if they were willing to give it up, they might do so by instructing their directors to dispose of the stock at public auction. The second objection was to the fact that the issue at par affected a partial stock dividend and so was contrary to the public interest.⁶³

To understand the reasons for the enactment of the so-called "anti-stock-watering" laws of 1893 and 1894, it is necessary to appreciate the contemporary conception of the nature of public utilities and the events which brought this matter to the fore in 1893. It was believed that public service rates depended upon the amount and number of the shares of capital stock outstanding. It was assumed that the public interest required that the number of shares be kept as small as possible. It was, therefore, quite natural that the distribution of stock to stockholders at par, when it might have been sold at a substantial premium, should be regarded as something analogous to a stock dividend, and, as such, some-

⁵⁹ Mass. Acts of 1878, c. 84; 1879, c. 90; P.S., c. 112, § 59. Professor Bullock has pointed out that in certain cases during this period, the legislature required some railroads to sell their stock at public auction when they proposed to raise additional capital. Bullock, *op. cit.*, p. 400.

⁶⁰ Mass. Acts of 1878, c. 84; 1879, c. 90; P.S., c. 112, § 59.

⁶¹ Mass. P.S., c. 106, §§ 37, 39, 41.

⁶² Calkins, *op. cit.*, p. 644.

⁶³ *Ibid.* The validity of this second objection will be considered in connection with the so-called anti-stock-watering laws of 1893 and 1894.

thing that should be prohibited. The issue of a large script dividend by the Connecticut River Railroad,⁶⁴ in 1893, on the occasion of its lease to the Boston and Maine, served to crystallize public opinion, and was directly responsible for the legislation of 1893 and 1894 relative to the issue of securities by public utilities.⁶⁵

The immediate result of this popular resentment against certain railroads was the enactment, in 1893, of a law to secure the stricter regulation of the issuance of securities by railroads and street railways.⁶⁶ The act provided that new shares to the amount necessary for any authorized purpose should be offered proportionately to the stockholders *at their market value*, as determined by the Board of Railroad Commissioners.⁶⁷ In their determination of the market value, the board was instructed to take "into account previous sales of stock of the corporation and other pertinent conditions." When the increase in capital did not exceed four per cent of the existing capital stock, it was provided that the directors might sell it directly at public auction, without first offering it to the stockholders.⁶⁸ Any shares not taken by the stockholders entitled to them might also be sold at public auction, but no share might be sold or issued for less than its par value in cash.⁶⁹

Not satisfied with this single enactment, the legislature appointed a joint committee to consider the advisability of further legislation along the same line. In his address to the General Court

⁶⁴ Bullock, *op. cit.*, p. 401.

⁶⁵ The prevalent attitude was expressed by Governor Russell in his special message of May 9, 1892, vetoing the bill for increasing the stock of the Connecticut River Railroad (Mass. Acts of 1892, p. 627, *et seq.*): "The bill authorizes an increase of \$2,420,000 of said stock, making the total authorized capital \$5,000,000, or about double its present amount. In the absence of any restriction in the bill, this additional stock may and no doubt will be divided at its par value of \$100 among the stockholders of said company in proportion to their holdings. The present market value of the stock of this company, as fixed by recent sales, is about \$235 a share. . . . To enable them [the stockholders] to obtain this bonus, nearly one and one half millions of dollars of unnecessary stock is to be added to the capital, the dividend upon which at ten per cent places an unnecessary burden of \$150,000 each year upon the business of the railroad, that is, upon the public. . . ."

⁶⁶ Mass. Acts of 1893, c. 315.

⁶⁷ *Ibid.*, § 1.

⁶⁸ *Ibid.*

⁶⁹ *Ibid.*, § 2.

on January 4, 1894, Governor Greenhalge stressed the desirability of rigid control over the capitalization of public service companies.⁷⁰ In its report to the legislature, the special committee urged that the determination of the amount of securities to be issued by a public utility for any authorized purpose should rest with the appropriate commission, "to the end that reasonable dividends, interest and profits should be paid only upon a sufficient capital to properly conduct the business of quasi-public corporations. . . ."⁷¹

The General Court followed the committee's recommendations and passed three laws: the first restricted the security issues of all gaslight and electric light companies to the amount necessary for the purposes of the issue, as determined by the Board of Gas and Electric Light Commissioners;⁷² the second placed similar restrictions upon telephone, telegraph, and water companies, the determination of the amount of securities necessary for the purposes of the issue being made the duty of the Commissioner of Corporations;⁷³ the third provided that railroads and street railways should be similarly restricted, the Board of Railroad Commissioners being charged with the investigation and determination of the amount reasonably required for the authorized purposes.⁷⁴ It was provided that, in all cases where the issue was approved, the order should "specify the respective amounts of stock and bonds authorized to be issued for the respective purposes to which the proceeds thereof are to be applied."⁷⁵

These measures to minimize the number of shares issued by public service corporations were carried to the extreme with the extension to all utilities of the requirement that new shares of capi-

⁷⁰ "I deem it important that suitable legislation be enacted to prevent the watering of the stock of quasi-public corporations, either through the instrumentality of construction companies or otherwise, and also to prevent the issue of bonds as a bonus to parties who subscribe for stock (*sic*); to confine the expenditures of these corporations as strictly as possible to the purposes for which they are organized, and to insure honesty in dealing both with the stockholders and with the public. And, further, all contracts for the lease, sale or purchase of railroads or street railways should be subject to the approval of the Railroad Commissioners." Mass. Senate document 1 of 1894.

⁷¹ Mass. Senate document 67 of 1894. ⁷² Mass. Acts of 1894, c. 450.

⁷³ *Ibid.*, c. 452.

⁷⁴ *Ibid.*, c. 462.

⁷⁵ *Ibid.*, c. 450, § 1; c. 452, § 1; c. 462, § 1.

tal stock must be offered proportionately to the shareholders *at not less than their market value*, as determined by the appropriate commission.⁷⁶ As in the case of railroads and street railways under the Act of 1893, permission was given for the sale at public auction of all shares unsubscribed for by the stockholders to whom they were offered, and of any increase amounting to less than four per cent of the outstanding capital stock;⁷⁷ but no share might be issued for less than its par value to be paid in cash.⁷⁸ Thus a restriction incorporated into the law, under popular resentment against individual railroads because they issued scrip dividends, was extended to all public utilities, without, apparently, any independent consideration of the necessity of applying such measures to the other utilities.

At this point, it seems advisable to pause for a brief parenthetical consideration of one extension of the commissions' power relating to security issues. In 1896, the Board of Railroad Commissioners was authorized, if it appeared that the assets or capital stock of a company were impaired, to require, as a part of an order approving a new issue of securities, that the impairment be made good.⁷⁹ And in the Revised Laws of 1901, there was a pro-

⁷⁶ "Whenever a corporation owning or operating a railroad or railway, whether such railroad or railway is operated by steam or other power, or a gaslight, electric light, aqueduct or water company, or a corporation established for and engaged in the business of transmitting intelligence by electricity, increases its capital stock, the new shares to the number necessary to produce the amount necessary for the purposes for which such increase is authorized shall be offered proportionately to its stockholders at not less than the market value thereof at the time of increase as shall be determined by the board of railroad commissioners in the case of a steam railroad or street railway company, by the board of gas and electric light commissioners in the case of a gaslight or electric light company, and by the commissioner of corporations in the case of an aqueduct or water company or a corporation established for and engaged in the business of transmitting intelligence by electricity, taking into account previous sales of stock of the corporation and other pertinent conditions. . . ." Proviso: "that when the increase in the capital stock does not exceed four per cent of the existing capital stock of the corporation the directors may dispose of the same in the manner provided in section two of this act, without first offering the same to the stockholders." Mass. Acts of 1894, c. 472, § 1.

⁷⁷ *Loc. cit.*, and § 2; R. L., c. 109, § 30.

⁷⁸ Mass. Acts of 1894, c. 472, §§ 1, 2.

⁷⁹ *Ibid.*, 1896 c. 409.

vision conferring similar power upon the Board of Gas and Electric Light Commissioners.⁸⁰ It should be noted that the commissions were not given the power to require directly that an impairment of capital be made good; but could do so only as a part of an order approving an issue of new stock or bonds.⁸¹ The relation of these enactments to the so-called "anti-stock-watering" laws is obvious: these powers were granted to the commissions so that they might be in a position to see that the old stock was worth par before approving the new stock, which, by law, had to be issued at par or above. In other words, it gave the commissions the power, within limits, to build the market value of a company's stock up to par, or to keep the market value equal to, or above, the par value.

The provisions of the acts of 1893 and 1894, requiring the sale of additional stock at market value as determined by a public commission or by sales at public auction, were novel and radical innovations in the field of public utility regulation.⁸² These enactments gave the Massachusetts commissions the broadest powers in the control of the issue of stocks and bonds: in this regard, the Massachusetts commissions could no longer be classified as "weak." For a considerable number of years, no other commission or regulatory body had powers at all comparable to those of the Massachusetts bodies.⁸³

⁸⁰ "If, when the board of gas and electric light commissioners approves of an issue of new stock or bonds by a gas or electric light company, it determines that the fair structural value of the plant of such company is less than its outstanding stock and debt, it may prescribe such conditions and requirements as it determines are best adapted to make good within a reasonable time the impairment of the capital stock; or, before allowing an increase, it may require the capital stock to be reduced by a prescribed amount not exceeding the amount of such impairment. . . ." Mass. R. L., c. 109, § 26.

In several cases where such impairment was found, the commission sought to comply with the law by requiring the stock to be issued at a premium, if such was possible, and prescribing that the premium be devoted to making good the impairment. In other cases, the commissions ordered a reduction of dividends and the reinvestment of a part of the earnings in additions and betterments until the assets should be built up to a parity with the liabilities.

⁸¹ For a discussion of this enactment and the powers of the commission under the same, see *Childs v. Krey*, 199 Mass. 352, 356 (1908).

⁸² *Report of Commission on Commerce and Industry* (1908), p. 61. It appears that Maine and New Hampshire subsequently followed Massachusetts in this respect.

⁸³ 41st Ann. Rep. Mass. R. C. 51 (1909).

For approximately ten years, there was little criticism of these enactments. During the years immediately following 1894, no insuperable difficulties were encountered in the financing of public utilities. The fact that the requirement of sale at market value did not break down sooner may be attributed to external economic conditions. These measures were enacted in the nineties, at a time when the price level was at its low point. There followed a period during which the rising price level caused the general trend of values to be upward. Thus the stockholders found that their investments in new issues of stock, even at the full market value, were profitable because of the appreciation in value of all securities which followed. When the rise in the price level was less pronounced, however, it became increasingly difficult for utilities to secure the capital necessitated by the larger demands made for their services. For these reasons, it was the period from 1904 to 1908 that witnessed the formulation of objections to this system which led to further legislation in 1908.

The requirement that new stock of public service corporations be issued at market value as determined by the appropriate commission was criticized quite as much by the committees of the legislature and the regulatory boards, as by the representatives of the utilities, so there can be little doubt that there were well-founded objections to the results produced by the operation of the laws. Before considering the specific criticisms of the laws, however, two minor matters merit passing notice.

In the first place, it is hardly appropriate to term the statutes under discussion "anti-stock-watering" laws. In the usual sense in which it is used, "watered stock" is a term applied to shares that have been issued for a consideration of less value than the par value of the shares. It is not even essential that the par value be paid in cash to prevent "stock-watering." And it is certainly poor terminology to designate stock as watered simply because it is not issued at full market value when that value is above par.⁸⁴ It was

⁸⁴ The Commission on Commerce and Industry (1908) in its report said, at page 61: "It is undoubtedly a sound theory that the amount of the capital stock to be issued by a public service corporation should be regulated by a law requiring each share when issued to represent what it purports to represent,—a proportionate part of a capital authorized by law and actually paid in in

the use of the catchword "watered stock" which unquestionably accounted for much of the popular support accorded these enactments.

Furthermore it may be noted that a limitation on stock issues is not essential to keeping the rates at a reasonable level. Since the acts of 1894, it has been established that the capitalization alone is not the proper basis for the regulation of rates and charges. In 1898, the United States Supreme Court, in *Smyth v. Ames*, held that the fair value of the property used in the public service should constitute the basis upon which the reasonableness of rates should be measured,⁸⁵ and it has consistently held to this doctrine to the present time. The main interest of the public is in the matter of service and rates; and if the public is protected by regulation in these regards, there is little need to attempt to keep the number of shares of outstanding stock at a minimum by requiring the issue of additional shares at the full market price when that market value is above par.

One of the most serious objections to the requirement that new stock be issued at not less than its market value as determined by the regulatory commission was the grave possibility that this practice would interfere with the state's control over rates.⁸⁶ The obvious purpose of the law was to make possible better and cheaper service which, it was considered, would follow from compelling the corporation to obtain additional capital upon the lowest available terms. But as so often happens, these provisions operated to produce results quite different from those desired.

full. The evils of excessive capitalization, by issuing shares which have not behind them what they purport to have, which is properly called stock-watering, have been demonstrated by experience, and may be taken for granted. These evils are guarded against in Massachusetts by the long-established requirement that the stock shall be issued not below par, and for cash."

And again, at page 64: "It is a misleading stretch of language to speak of issuing at par stock which commands a premium as 'stock-watering.' So long as it is issued for cash at par, it conforms to every standard set by the State, and every standard which the stock certificate purports on its face to require. To stigmatize stock as 'watered' because it is not issued at a premium is to confuse the settled basis of capitalization and set up a basis varying with the prosperity of the company. . . ."

⁸⁵ *Smyth v. Ames*, 169 U. S. 466, 546 (1898).

⁸⁶ Bullock, *op. cit.*, p. 409.

Take, for example, the case of a gas company that had been paying eight per cent dividends and reinvesting a portion of its earnings, and whose stock therefore had a market value of, say, \$150. The utility applied to the board for its approval of an increase of its capital stock: and the price established by the board was \$150 (par being \$100), at which price the issue was disposed of to the stockholders. If the company continued its eight per cent dividend upon the par value of its shares, the stockholders who purchased at \$150 would receive, not eight per cent, but only five and a third per cent on the money last invested. Since the price of \$150 was fixed by a state commission, the security holders were justified, partially at least, in the expectation that the utility would be permitted to distribute such dividends as would return them five per cent plus on their investment, and thus, presumably, the market value would be maintained at \$150.⁸⁷ If, for any reason, it became advisable to order a reduction in rates, or if it proved necessary to order a reduction in dividends to build up the property of the utility, the commission was sure to encounter objections from the stockholders to any ruling which would reduce their returns below the modest five and one-third per cent which they received with the payment of eight per cent dividends upon the par value. The stock had been issued at a premium fixed as a *minimum* by a public board, and any attempt to regulate rates which disregarded this fact laid the state open to the charge of bad faith. In effect, by requiring the issue of stock at a high premium, the state had created a new par by which the reasonableness of the rates and dividends paid should be measured. The difficulty of their position was the subject of frequent comment by the regulatory commissions.⁸⁸

The clearest recognition of the difficulties in the regulation of rates, which developed from compelling the issuance of securities at market value as determined by a public body, is to be found in

⁸⁷ "A further objection to any attempt to compel the sale of new stock at a price above par is that it implies a certain warrant that this value, thus publicly fixed, will be maintained in the future, on the old stock as well as the new. In thus attempting to limit profits it may actually tend to guarantee them." U. S., *Report of the Railroad Securities Commission*, 1911, p. 26.

⁸⁸ A very good concise statement may be found in 24th Ann. Rep. Mass. G. & E. L. C. 10-12 (1908).

the report of the Commission on Commerce and Industry from which the following pertinent excerpts have been taken:

Now, the provision introduced by the laws of 1893 and 1894 creates a fundamental difficulty. By requiring new stock to be issued at a price above par, it breaks in on the uniformity of the method of capitalization, and with the result that it impairs the effectiveness of the control which the State can exercise in regulating the service to be furnished by the corporation. The declared object of keeping down the amount of shares is that a larger portion of the profits which might otherwise be paid out in dividends shall be applied in diminishing rates or improving service. Yet the moment that the State should demand such an application of profits, and insist that the rate of dividends should be reduced in order that the demand be complied with, it would be met with the proposition that the rate of dividend should be determined not by a reference to the par value of the stock, but by a reference to the higher price which the State itself has prescribed as a minimum. And this proposition would be reasonable.⁸⁹

Par being the established basis on which the rate of dividend is fixed and quoted, the State, so long as it does not interfere in the price to be paid, except to require that it be not less than par, is justified in treating par as the permanent standard by which the reasonableness of dividends shall be measured. . . .⁹⁰ Every stockholder who has bought his stock at a premium fixed by the Board of Railroad Commissioners may properly insist that that price be taken as the basis in determining what rate is reasonable. For the State to forbid a sale below a stated price, and then refuse to recognize that price when it is proposed to regulate dividends, would be little short of bad faith; and any tribunal passing upon the reasonableness of rates charged, with a view to the stockholder's fair return, could hardly fail to find force in the contention that to ignore the price fixed by the State would approach confiscation.⁹¹

By requiring a sale at a premium it results that the State fixes, then, what becomes in effect a new par; and a new par not only for the particular stock now issued, but, since all stock must stand on the same dividend basis and cannot be separated into classes, the new par is fixed for the entire capital stock. Thus it happens that for the sake of keeping down the number of shares to be issued on the occasion of some fractional increase, often a small one, the State has permanently estopped

⁸⁹ *Report of Commission on Commerce and Industry* (1908), p. 62.

⁹⁰ *Ibid.*, p. 62.

⁹¹ *Ibid.*, p. 63.

itself from treating any of the shares as having the par which it had originally fixed, and has advanced the measure of a fair dividend on all. In this way the law actually overreaches itself. A general advance of the dividend standard on all shares results, and this is tantamount, so far as the public is affected by dividends paid, to a stock-watering since it would increase the total of dividends to be permitted before public demands should be acceded to. This is the fundamental objection to recognizing by law any normal value other than par.⁹²

A second objection—the assumption on the part of the investing public that the state commissions were at least morally responsible for the maintenance of the value of stock which had been ordered to be issued at a premium—was in some cases but another instance of the manner in which the commissions' control over rates was weakened. In rate cases, it was often urged that reductions should not be ordered which would have as one of their ultimate effects a depreciation in the market value of stock below the issue price as previously determined by a public body. In cases involving the commission's approval of additional securities, this public responsibility for the maintenance of the market price was also urged. Of course, the commissions denied that they were under any such obligation.⁹³ Indeed, since market price of a corporation's stock is the resultant of so many factors—earnings, prospective future of community served, general conditions prevailing in industry, position of the money market—it would, in a great many cases, have been utterly impossible for any public body, exerting at best only a limited influence upon earnings, to have prevented the market value of the utilities' stocks from depreciating. However, neither the impossibility of the task, nor the repeated denials of the commissions served to eradicate the popular misconception on this question.

⁹² *Ibid.*, pp. 63–64.

⁹³ See, for example, the Petition of the Greenfield Electric Light and Power Company, 31st Ann. Rep. Mass. G. & E. L. C. 98–99; P. U. R. 1915F, 795, 796 (1915). "At the hearing, in discussing the price at which the new shares shall be offered to the stockholders, it was urged that the commonwealth is or should be responsible to investors for the maintenance of the value of stock issued at a premium. The Board feels that this may be an opportune time to declare for the information of all concerned that the approval of stock carries with it no actual or implied guaranty as to the maintenance of dividends."

A further objection related to the provision for the sale at auction of any shares not subscribed for by the stockholders. This procedure involved the possibility of inflicting a grave injustice upon the loyal stockholders. The stockholders were asked to subscribe for stock at the market value established by the board. But there was always the possibility that the auction sale of the unsubscribed shares would be at a lower price than that established by the commission. Such a procedure proved to have such an undesirable effect in practice, amounting as it did to a "hold-up" of the loyal stockholders, that, when any shares remained unsubscribed, the directors would frequently refrain from issuing them at all.⁹⁴

The discouragement of investment in public utilities constituted one of the gravest indictments urged against the operation of the "anti-stock-watering" laws.⁹⁵ It developed that the requirement that new stock be issued at market price made it difficult or impossible for the utilities to raise any substantial amount of additional capital except under the most favorable circumstances: i.e., when there was a general appreciation in value of all securities. When it was most essential to enlist the support of the stockholders, as in all periods of a relatively stable or declining price level, it was found that the inducements to such investments were insufficient.⁹⁶ The enforced issue of shares at high premiums practically limited the return to four or five per cent, a return hardly

⁹⁴ Bullock, *op. cit.*, pp. 405 *et seq.*

⁹⁵ "The experience of Massachusetts has shown that the attempt to prohibit the issue of stock below its market value has hampered the investment of capital and has distinctly interfered with the development of facilities. If this has been the experience of Massachusetts, where capital was abundant, we can hardly expect better results in states where capital is more scarce." U. S., *Report of the Railroad Securities Commission*, 1911, p. 26.

⁹⁶ "The experience of Massachusetts public service corporations during the past three or four years, however, has demonstrated an inherent weakness in this scheme of regulating the issue of increased capital. It will only be effective as a means of raising capital when it is least needed; that is, when the securities will sell themselves on the basis of their own intrinsic value. Whenever the coöperation of stockholders is really required in periods of financial depression, such coöperation can only be secured by offering more substantial inducements than are afforded by subscriptions at a price approximating current quotations." Calkins, *op. cit.*, p. 643.

exceeding that paid upon savings deposits or high-grade bonds. With such strictly limited returns it was but natural that investments involving considerable risks should have been checked.⁹⁷

The railroads, in particular, experienced a great amount of difficulty in raising capital needed for any sizable extension and development of their facilities.⁹⁸ During the period when these laws were in effect, from 1893 to 1908, the railroad companies of the state made only three applications to the Board of Railroad Commissioners for the fixation of an issue price.⁹⁹ In 1899, the commission fixed the issue price at 215 for the Norwich & Worcester Railroad Company; and in 1901, at 190 for the Boston & Maine Railroad. In both of these cases, the market conditions were favorable and the roads in question were able to put out the entire issue. The Boston & Maine attempted to put out a second issue in 1906; and, on application, the board fixed a price of 165. This price was found to be so prohibitive, however, that it was possible to sell only a fraction of the issue.¹⁰⁰ Thus the railroads were forced to undertake their expansion piecemeal, raising the necessary funds by putting out small issues of amounts not exceeding four per cent of their outstanding capital. In such cases, the issues were sold at auction without the necessity of having a price fixed by the commission. There were apparently sixteen issues of less than four per cent during this period.¹⁰¹

Investment in street railways, also, was discouraged and hampered, but not to the extent that it was in the case of steam railways. That their development was not more severely checked seems to be traceable to the fact that during these years street railways everywhere were expanding markedly. There were in all 207 applications for new issues of stock during this period. In 153

⁹⁷ Bullock, *op. cit.*, pp. 408, 409.

⁹⁸ ". . . it is beyond question that the law checked investment in railroads. Between 1893 and 1907 no new lines were constructed, only 102 miles of second, third, and fourth track were built, and construction was practically confined to the building of sidings." Bullock, *op. cit.*, pp. 404-405.

⁹⁹ *Report of Commission on Commerce and Industry* (1908), pp. 65-66.

¹⁰⁰ *Ibid.*

¹⁰¹ "For issues of less than 4 per cent of the capital the Old Colony Railroad Company has applied twelve times since 1893, the Connecticut River Railroad Company once, the Boston & Maine Railroad Company once and the Boston & Lowell Railroad Company twice." *Ibid.*, p. 66.

cases, these issues were authorized at par; leaving only 54 cases of sales at a premium.¹⁰² Thus it appears that most of this development was by new corporations, which, of course, issued their shares at par, or by old companies whose stock was not selling at high premiums.¹⁰³ The Commission on Commerce and Industry reached the conclusion that the starting of new street railways was not prevented, but that the expansion of the stronger companies—those whose stock commanded a premium—was very probably hampered and retarded.¹⁰⁴

Another reason given for the condemnation of the Acts of 1893 and 1894 was that they operated to drive capital seeking investment away from Massachusetts.¹⁰⁵ To give but a single instance, the American Bell Telephone Company finally left Massachusetts because of such restrictions imposed upon it. In 1880, the American Bell Telephone Company was organized as a Massachusetts corporation with an authorized capital of \$10,000,000.¹⁰⁶ The American Bell Telephone Company controlled the Bell patents; it was also a holding company that controlled, chiefly through stock ownership, the majority of the large operating telephone companies throughout the country.¹⁰⁷ Throughout its history, the company experienced considerable difficulty in securing the necessary state approval for desired increases in its capital. Thus in 1885, when the company applied to the General Court for permission to increase its authorized capital by \$20,000,000, the legisla-

¹⁰² *Report of Commission on Commerce and Industry* (1908), p. 66.

¹⁰³ Bullock *op. cit.*, p. 405.

¹⁰⁴ *Report of Commission on Commerce and Industry* (1908), p. 66.

¹⁰⁵ *Ibid.*, at page 57. "Strong complaints have been made to the Commission concerning the effect of the Massachusetts statutes which regulate the issue of stock by public-service corporations. The opinion is widely spread among persons familiar with financial affairs that investment in these corporations is discouraged by our laws, and that money which should be invested in Massachusetts to the advantage of the public is attracted to other States where more profitable returns are permitted, with the result that such enterprises are sometimes altogether prevented, and when undertaken are often retarded in their development."

¹⁰⁶ J. W. Stehman, *The Financial History of the American Telephone and Telegraph Company*, p. 20. A good account of the experience of the American Bell Telephone Company under the Massachusetts laws may be found scattered throughout Chaps. II and III.

¹⁰⁷ *Moody's Manual*, 1900, p. 834.

ture refused to grant the request.¹⁰⁸ The company was forced to secure the needed funds from earnings and from short-term loans. Finally in May, 1889, the legislature granted the company permission to increase its capitalization by \$10,000,000, refusing to approve the additional \$10,000,000.¹⁰⁹ In 1893, the company was again in need of funds, and requested permission to increase its capital stock from \$20,000,000 to \$50,000,000.¹¹⁰ The bill authorizing the desired increase passed the legislature in 1894; but it was vetoed by Governor Greenhalge on the ground that the company, in actuality, was a public service corporation, and, as such, could not "water" its stock.¹¹¹ In order to secure the desired increase, the company was obliged to permit the introduction of a bill recognizing the American Bell Telephone Company as a public service corporation.¹¹² Under the provisions of this act, the company issued blocks of stock at market value as fixed by the Commissioner of Corporations. After having thus acquiesced, there developed two chief reasons why the American Bell Telephone Company finally decided to leave Massachusetts.¹¹³ First, as a public service company, it was forbidden to own more than thirty per cent of the stock of subsidiary companies. This prevented the holding company from retaining a controlling interest in the operating companies. Second, it was prohibited from selling stock at less than the market price, and of course, stock dividends were forbidden. The company was earning and paying large dividends and its stock had a market value of over \$200. To decrease the apparent dividend rate, it desired to increase the number of shares outstanding. In 1900 the American Bell Telephone Company left Massachusetts. The American Telephone and Telegraph Company took over the assets of the American Telephone Company by exchanging two shares of its stock for each share of the latter company.¹¹⁴

¹⁰⁸ Stehman, *op. cit.*, p. 40. The company wished to issue these securities at par.

¹⁰⁹ *Ibid.*, pp. 34, 41.

¹¹⁰ *Ibid.*, pp. 59-60.

¹¹¹ *Ibid.*, p. 60.

¹¹² *Ibid.*, pp. 60-61.

¹¹³ *Ibid.*, pp. 73-74.

¹¹⁴ The American Telephone and Telegraph Company was incorporated in March, 1885, under the laws of New York for the purpose of establishing a long-distance telephone system covering the country. The par value of the shares of each company was \$100.

The case of the American Bell Telephone Company's experience was the most striking instance of diversion of capital from Massachusetts, but it was not the only case. For the most part, the diversion of capital occurred in a less noticeable manner, by Massachusetts investors putting their money into enterprises outside of the state; and only the effects of the diversion could be seen, as where the officers of the Boston & Maine Railroad explained its backwardness in making extensions and improvements as due to the difficulties placed in the way of their securing the necessary funds.¹¹⁵

A minor objection raised to the requirement that the issue price be fixed by the commission was that it imposed an undue burden upon the regulatory boards.¹¹⁶ The deadening mass of detailed and routine work tended inevitably to prevent the commissions from being able to give their attention to the more important questions of general policy. This question was of secondary importance only. In reality it was a criticism of the organization of the commissions and of the inadequacy of the assistance they were allowed to employ.

A more weighty criticism had to do with the practical difficulties encountered by the commissions in the fixation of the issue price at "market value." This duty was both difficult and disagreeable.¹¹⁷ The task was difficult because there were no criteria by which the boards could be guided in attempting to fix a definite market price. The market quotations were of little help because they applied only to the sale of small quantities, and there were no means of knowing in advance how much the market price would be depressed by the sale of a large block of stock.¹¹⁸ In some cases where the stock was closely held, it might very well happen that recent market quotations would be wholly lacking. The price fixed by the commissions was, hence, usually somewhat below the available market quotations. The task was a disagreeable one to the

¹¹⁵ *Report of Commission on Commerce and Industry* (1908), p. 65.

¹¹⁶ 10th Ann. Rep. Mass. G. & E. L. C. 34 (1894). J. B. Eastman, "The Public Service Commission of Massachusetts," *Quarterly Journal of Economics*, XXVII (Aug., 1913), 669, 703.

¹¹⁷ Bullock *op. cit.*, p. 407.

¹¹⁸ *Report of Commission on Commerce and Industry* (1908), p. 64.

commissions because any price they fixed was open to criticism. If the issue price was fixed too high and the company had difficulty in disposing of the stock, the commission was blamed for the inability of the utility to make the necessary improvements and extensions. If, on the other hand, the stockholders' rights to subscribe for the new shares proved to be of any considerable value, the commission was criticized for saddling an unnecessary burden upon the rate-paying public.

In one respect, compliance with the law required the commission to perform an impossible feat; namely, that of fixing the price at which stock was to be issued in the future to coincide with the future market value of that stock.¹¹⁹ The market price of stock was subject to wide fluctuations due to influences wholly beyond the control or prediction of the regulatory board, and quite independent of the condition of the utility itself. After the issue price had been fixed, there were several other preliminaries such as preparing and mailing notices and rights to stockholders, preparation of stock certificates, enlisting the support of bankers, et cetera, that had to be attended to before the stock could be offered for sale. And when the stock was actually issued, there could, of course, be no assurance that any sales would be either practical or possible at the established price.¹²⁰

From the point of view of the management of a public service corporation, the so-called "anti-stock-watering" laws developed a further objectionable feature. When the management of a utility has an improvement project in hand, it is extremely important that they know definitely in advance that they are going to have the necessary funds when they are needed. To this end, it is customary for the management to have the issue of securities underwritten by an investment banking house. This procedure was made difficult, if not impossible, by the Massachusetts regulation. Since the issue price was purposely fixed at its market value, thus ex-

¹¹⁹ *Ibid.*, pp. 64-65.

¹²⁰ "The Railroad Commission is thus called upon to fix a price without definite or permanent data to act on. A recent experience of the Edison Electric Illuminating Company illustrates how impracticable a price carefully fixed by commissioners may become before the stock can be actually subscribed." *Report of Commission on Commerce and Industry* (1908), p. 65.

cluding any special inducement to investors to purchase, there was no certainty as to the number of shares that would be taken by the stockholders. Any unsubscribed shares had to be offered at public auction. It was hence difficult or impossible for the board of directors to secure an underwriting contract with an investment banker for the disposal of any unsold remainder, since, if the securities were not taken at a fair price, there was, presumably, no market for them. Thus from beginning to end, the directors were denied the possibility of having any certainty as to the amount of money that would be realized by any issue of stock.¹²¹

There has come to the present writer's attention only one instance when the operation of the "anti-stock-watering" laws was alleged to have worked out advantageously. In 1900, the Board of Railroad Commissioners declared that in their opinion the wisdom of the restrictions had been proved.¹²² But in view of the fact that this opinion was expressed at an early date before the operation of the law had developed the objections detailed above, it could scarcely be held that it carried any considerable weight when the advisability of a change in the law was under consideration in 1908.

The effects of the operation of the "anti-stock-watering" law after 1905 left little doubt as to the desirability and necessity for a change in the restrictions imposed upon the increase of capital by public service corporations. On investigation, it was stated that the method prescribed by these laws for raising additional capital was "difficult and costly, if not impossible."¹²³ The Com-

¹²¹ *Report of Commission on Commerce and Industry* (1908), p. 65.

¹²² "The wisdom of the legislation known as the 'Anti-stock-watering laws,' restricting original issues of street railway securities to the amount requisite for cost of construction and equipment, forbidding additional issues where the capital or assets have become impaired until such impairment is made good or provided for in some way, and prohibiting the issue of bonds unless the physical assets of the company are equal to its aggregate outstanding indebtedness, is now generally acknowledged. Under the administration of these laws, the public are protected from evils of over-capitalization, and street railway securities have, in the interests of both the public and the company, been greatly strengthened. The freedom with which investments are made and money loaned is proof of this assertion." 32d Ann. Rep. Mass. R. C. 93-94 (1900).

¹²³ "Taken in all its parts, the machinery which the present law prescribes for raising money for what is to be assumed to be a desirable public improvement is such as to make the process difficult and costly, if not impossible."

mission on Commerce and Industry concluded that necessity demanded a revision of the law; and that, as a matter of expediency, to attract capital into Massachusetts enterprises, public service corporations should be conceded the right to issue stock at par.¹²⁴ The Commission's recommendation referred specifically to railroads and street railways; but it was pointed out that all the criticisms were applicable in principle to an issue of stock by any public utility at a premium fixed by a regulatory board.¹²⁵ The Commission expressed itself as confident that the requirement of the approval of the purpose of an issue by the Board of Railroad Commissioners would prevent any issue not warranted by public convenience and necessity.¹²⁶

Because the railroads and street railways had suffered most severely under the laws of 1893 and 1894, the revision of the restrictions upon the issue of additional securities began with them. In 1908, it was provided that a railroad or street railway, when it increased its capital stock, should issue the new shares to its stockholders proportionately at such price as might be determined by the stockholders.¹²⁷ As with the previous enactments, the corporation might sell at auction any shares not taken by the stockholders, or any increase amounting to less than four per cent of the outstanding shares.¹²⁸ But in no case was authorization given for the issue of shares at less than their par value to be paid in cash.¹²⁹ In enacting these provisions, the legislature had carried out all of the recommendations of the Commission on Commerce

¹²⁴ "Aside from the difficulties experienced in marketing stock at prices fixed by the commissioners, it is to be remembered that allowing shareholders the possibility of getting new stock at less than its market value offers obvious advantages to shareholders and works as an inducement to put money into Massachusetts enterprises of this character. Looked at in this light, the question whether the State should offer such an inducement is one of practical expediency. . . . The right to issue stock at par, in so far as it is a privilege of pecuniary value, is to be considered as a part of the compensation allowed to the corporation. As railroad matters now stand in this State, it is expedient, in the judgment of the Commission, aside from the reasons given above, to concede this as an element of compensation, and by this means attract capital to investment in Massachusetts public enterprises." *Ibid.*, p. 67.

¹²⁵ *Ibid.*, p. 69.

¹²⁶ *Ibid.*, pp. 68-69.

¹²⁷ Mass. Acts of 1908, c. 636, § 1; 1909, c. 369; 1915, c. 298; 1919, c. 333, §§ 23, 24.

¹²⁸ *Ibid.*, c. 636, § 2.

¹²⁹ *Ibid.*, §§ 1, 2.

and Industry; and, had the law stopped with this requirement, the railroads and street railways would have been allowed to issue additional shares at any price, not less than par, upon which the directors might decide. But in the third section, where it was stated that the railroad commissioners' determination of the amount of stock to be issued should be based upon its issue price, there was added the following proviso: "that the board shall refuse to approve any particular issue of stock if, in the opinion of the board, the price fixed by the stockholders is so low as to be inconsistent with the public interest."¹³⁰ No definition or explanation was given of what price should be considered "so low as to be inconsistent with the public interest;" and it was in the interpretation of this phrase that the commissions, in the present writer's opinion, changed the intended effect of the amended law.¹³¹

These amendments to the "anti-stock-watering" laws applied only to railroads and street railways. In its annual report for 1908, the Board of Gas and Electric Light Commissioners recommended that similar provisions be enacted to apply to gas and electric light companies. It pointed out that uniformity in the treatment of the public utilities was desirable.¹³² Its chief reason for desiring the change, however, was that the enforced issue of securities at high premiums gave, in the eyes of the public, a certain sanction to the large earnings that were responsible for the high market value, and made it difficult to effect a reduction in the rates charged. It summarized its objections to the existing law and its reasons for advocating the amendment as follows:

The present law expressly provides that stockholders shall not be entitled to take additional issues at less than the market value thereof. To the extent to which the market value is determined by earning power, the effect of the actual application of the law is to capitalize as against the public the existing earning power of the company, regardless of whether that earning power is based upon reasonable prices for the gas and electricity supplied, or not. It is true that in the past this has not led to results so plainly disadvantageous to the public as to

¹³⁰ Mass. Acts of 1908, c. 636, § 3.

¹³¹ The question of the validity of the commissions' interpretations will be considered below.

¹³² 24th Ann. Rep. Mass. G. & E. L. C. 10 (1908).

justify a change in the law for this reason alone. But the continued prosperity of the larger gas and electric light companies, the growing tendency to more widely recognize their desirability as safe and permanent investments, and their gradually increasing rates of dividends, are steadily forcing up the market prices for their stocks; and the effect of the actual application of the law in future increases of high-priced stock is likely to be far more pronounced, and to work disadvantageously to the public.

As matters now stand, the Board has no discretion in its administration of the law, and no duty save to determine the amount of additional capital required for the purposes for which the corporation has voted to increase its stock and the market value of the proposed issue. The question of the price of gas or electricity is not directly before the Board in the discharge of its duty, although the whole purpose of the law was undoubtedly to make possible better and cheaper service by compelling the companies to obtain new capital upon the lowest terms upon which it might be available at the time of the increase, and thereby to keep down the dividend burden which the public must meet. The result is that, if a company's rates are unreasonable and excessive, the Board, in administering a law enacted with a view to make low rates more possible, may be compelled with full knowledge of the facts to create a condition which will make it difficult and perhaps impossible to order reductions in rates in the future. This is not a result which the Board believes the Legislature anticipated when the law was originally enacted. The Board therefore recommends that the so-called "anti-stock-watering" laws be amended, so far as they concern the disposal of increases of the capital stock of gas and electric light companies, so as to be in substantial conformity with chapter 636 of the Acts of 1908, as construed and applied by the Board of Railroad Commissioners, but with the power expressly granted to the Board at its discretion to make such recommendations relative to the price and quality of the gas and electricity supplied as it may see fit.¹³³

In 1909, upon the recommendation of the Board of Gas and Electric Light Commissioners, the provisions relating to the increase of capital stock of gas and electric companies were amended to bring them into conformity with the provisions applicable to railroads and street railways; that is, the new shares were to be offered to the stockholders at such price not less than par as

¹³³ *Ibid.*, 11-12 (1908).

might be determined by the directors. If the Board of Gas and Electric Light Commissioners found that the price fixed by the directors was "so low as to be inconsistent with the public interest," the issue price was to be determined by the board.¹³⁴ The amendment left unchanged the provision for the sale at public auction of an issue constituting less than four per cent of the outstanding stock or of any shares not subscribed for by the stockholders to whom they were offered, but none might be sold for less than their par value.¹³⁵

The interpretation of the acts of 1908 and 1909 by the regulatory boards left the practical effects of the law virtually unchanged. The construction placed upon the phrase "so low as to be inconsistent with the public interest" by the commissions seems not to have been warranted by the circumstances surrounding the enactment of the amendment. In the petition of the Fitchburg and Leominster Street Railway Company,¹³⁶ the first to come before the Board of Railroad Commissioners under the provisions of chapter 636 of the Acts of 1908, the board refused to give its approval to a proposed issue at par. This railway had applied to the board before the passage of the amendment for the fixation of an issue price; and a price of \$110 was fixed, but the stock had never been put out at that price.¹³⁷ The board took the position that the chief change in the law was that the issue price was now, in the first instance, to be determined by the directors subject to the approval of the board, instead of being fixed directly by the board. Thus conceived, the change was in the manner of adminis-

¹³⁴ "A gas or electric company shall, upon any increase of its capital stock, except as provided in the following section, offer the new shares proportionately to its stockholders at such price, not less than the par value thereof, as may be determined by its directors. . . . The vote of the board of gas and electric light commissioners . . . as to the amount of stock which is reasonably necessary for the purpose for which such increase has been authorized shall be based on the price fixed as hereinbefore provided, unless the board is of the opinion that such price is so low as to be inconsistent with the public interest, in which case it may determine the price at which such shares may be issued." Mass. Acts of 1909, c. 477, § 1.

¹³⁵ *Ibid.*, § 2; 1914, c. 742, § 44.

¹³⁶ 40th Ann. Rep. Mass. R. C. 153-155 (1908).

¹³⁷ *Ibid.*, p. 154.

tration rather than in the underlying principles.¹³⁸ In this case, the board laid down the principle, which it followed in the succeeding cases that came before it, that any price would be considered "so low as to be inconsistent with the public interest" if it was lower than was considered requisite to assure obtaining the necessary capital.¹³⁹ The Board of Gas and Electric Light Commissioners placed a similar interpretation on the change in the provisions governing the issue of securities by gas and electric light companies. It held that no change was intended in the purpose of the law, which remained to keep the number of outstanding shares at a minimum.¹⁴⁰

It is difficult to see how the law was "liberalized" as interpreted by the commissions. One of the most important reasons given for the change in the law was the elimination of any compulsion on the companies to issue new stock at high premiums fixed by state authority, the chief objection being that such a procedure made it

¹³⁸ *Ibid.*, at page 154 the board said: "While the law of 1908 was intended to liberalize the state's policy with respect to the issue price of increases of railroad and railway stock, it did not affect the principle upon which the issue price of these securities was formerly established. The standard was only changed from 'such prices not less than the market value thereof at the time of increases as may be determined by the board of railroad commissioners, taking into account previous sales of stock of the company and other pertinent conditions' to 'the price at which such stock is to be offered as fixed by the stockholders, provided that the board shall refuse to approve any particular issue of stock if, in the opinion of the board, the price fixed by the stockholders is so low as to be inconsistent with the public interest.'"

¹³⁹ *Ibid.*, at page 155: "The phrase 'so low as to be inconsistent with the public interest,' undoubtedly difficult of exact definition, must, in connection with the legislative act of 1908, be taken to mean in any specific case an issue price materially lower than a price which would assure a ready market for the issue."

¹⁴⁰ "The anti-stock-watering laws so called, under which a considerable amount of the company's outstanding stock has been issued, were evidently designed by the Legislature to limit the number of shares to be issued, not merely by the amount of money reasonably necessary to be raised, but by requiring the new stock to be offered at such premium as the shares might be expected to command in the market. It was clearly the legislative purpose that the corporation should gain rather than the stockholders by the issue of new stock. The change in this provision in 1909, allowing the directors to fix the price in the first instance, doubtless liberalized the law, but was not intended to change its original purpose nor to permit the fixing of the price of such new stock materially lower than would insure a ready market for the issue." Cambridge Petition, 30th Ann. Rep. Mass. G. & E. L. C. 36, 39 (1914).

difficult for the regulatory boards to order rate reductions which would decrease the return paid on stock purchased at high premiums. The main purpose of the amendment was to reestablish par as the basis for measuring the reasonableness of rates. It cannot be said that the compulsion to issue new securities at whatever premiums the market conditions made possible was eliminated, so long as the regulatory commissions were prepared to withhold their approval whenever the price was lower than necessary to secure the sale of the securities. That the Commission on Commerce and Industry, whose report was largely responsible for the change in the law, intended that the utilities should be permitted to issue securities at any price they might desire, so long as the price was not less than par, was clearly indicated by the following statement:

The Commission recommends that the law be modified so as to permit railroad and street railway companies, when authorized to increase their capital, to issue new shares to be offered to stockholders *at such price, not below par, as the stockholders may vote*, any shares not subscribed for to be sold at public auction. By this modification the law as it stood prior to 1871, and again between 1878 and 1893, will be restored. . . . But whatever price may be adopted, it will be the action of the company itself which fixes it, and par will remain for all purposes the fixed standard by which the reasonableness of dividends shall be measured when concessions are demanded by the public.¹⁴¹

These statements of the purposes of the amendments were ignored by the commissions. In the light of their interpretations, the most important change was in the administration of the provisions of the law,—the responsibility for the determination of the issue price being placed, in the first instance, upon the directors of the utility rather than upon the state boards. The regulations relative to security issues were liberalized only in so far as the regulatory commissions naturally hesitated to withhold their approval to issue new shares at par unless there was no doubt that the securities would sell readily at a higher figure. Since any mistakes made by the commissions subjected them to severe criticism, the commissions were somewhat less prone after 1908 to oppose

¹⁴¹ *Report of Commission on Commerce and Industry* (1908), p. 68. Italics supplied.

their judgment to that of the directors. Under the amended provisions, the state boards were not under the necessity of determining the price in the first instance, and so inevitably did not make the extensive investigations that had previously been necessary. Because they were not so completely informed, it is quite likely that in many cases they gave their approval to the issue of new shares at par when, if they had been charged with the determination of the issue price, they would have fixed a price above par. Thus, despite the attitude of the boards depicted above, the change in the responsibility for the determination of the price at which new stock should be issued brought with it a tendency for the price to be fixed at par or at a figure considerably less than the market value.

Since 1908, there has been only one significant change in the laws regulating the price at which new stock is to be issued. Corporations generally, when they increase their capital stock, are instructed to offer the new shares proportionately to their stockholders at or above par.¹⁴² For railroads and street railways, the issue price, as fixed by the stockholders, is subject to the approval of the Department of Public Utilities, and may be set aside if found to be "so low as to be inconsistent with the public interest."¹⁴³ The price at which new stock of gas and electric companies is to be offered for sale is to be fixed at such price as the directors may determine; but if this price is found to be lower than is consistent with the public interest, the department may fix the price at which the additional stock is to be issued.¹⁴⁴ The law as it was enacted in 1894 still applies relative to the issue of additional shares by telephone and telegraph companies. In regard to these latter companies, the new stock must be issued at a price "not less than the market value thereof at the time of increase" as determined by the Department of Public Utilities.¹⁴⁵ After the American Bell Telephone Company left Massachusetts in 1900,¹⁴⁶ there was apparently no domestic telephone or telegraph company of sufficient size to be interested or effective in securing an amendment of the law.

¹⁴² Mass. G. L., c. 155, § 20.

¹⁴³ *Ibid.*, c. 160, § 48; c. 161, § 28.

¹⁴⁵ *Ibid.*, c. 166, § 7.

¹⁴⁴ *Ibid.*, c. 164, § 18.

¹⁴⁶ *Supra*, pp. 46 *et seq.*

In all cases, the directors are required to offer such new issues proportionately to the stockholders of the company.¹⁴⁷ As provided under previous laws, any shares unsubscribed for by the stockholders entitled to take them, may be sold by the directors at public sale.¹⁴⁸ Also any increase amounting to less than four per cent of the outstanding stock may be sold directly at public auction if the directors so desire.¹⁴⁹

In regard to each class of public service corporations, the General Laws provided that in no case could stock be issued for a less price than its par value.¹⁵⁰ It was in the provision for an exception, in the case of gas, electric light, and water companies, to this long established rule, that a significant change has been made in the law applicable to the issue price of new stock. In 1922, it was provided that the department might authorize the sale of additional issues of stock at a price less than par if it considered it impossible to dispose of such new shares at, or above, their par value.¹⁵¹ With the permission of the department, the directors may also sell, at public auction or otherwise at less than par, any new shares not taken by the stockholders, if, in the judgment of the department, they cannot be sold at par.¹⁵² When it is found necessary to permit the issue of additional stock at less than par, the commission may append any necessary requirements for the amortization of the discount.¹⁵³

Control over the Amounts of Security Issues

The Massachusetts commissions have been among the few state commissions that have had the power to determine the amount of

¹⁴⁷ Mass. G. L., c. 155, § 20; c. 159, § 50; c. 164, § 18; c. 166, § 7.

¹⁴⁸ *Ibid.*, c. 155, § 20; c. 159, § 51; c. 164, § 19; c. 166, § 8.

¹⁴⁹ *Ibid.*, c. 159, § 51; c. 164, § 19; c. 166, § 8.

¹⁵⁰ *Ibid.*, c. 155, § 17; c. 159, §§ 50, 51; c. 164, §§ 18, 19; c. 166, § 8.

¹⁵¹ *Ibid.*, c. 164, § 16 was amended by Mass. Acts of 1922, c. 226, § 1, which added the following: ". . . If it [the department] deems that such new shares cannot be disposed of to the stockholders or others at or above the par value thereof, it may, notwithstanding the provisions of this or any other section, authorize the issue of such new shares at a price less than the par value thereof and with such requirements for the amortization of the discount as it may deem necessary in the public interest. . . ."

¹⁵² Mass. Acts of 1922, c. 226, § 2 amending Mass. G. L., c. 164, § 19.

¹⁵³ Mass. Acts of 1922, c. 226, § 1.

securities reasonably necessary for the purposes for which a utility decided to issue additional securities.¹⁵⁴ In the previous discussion of the restrictions imposed upon the price at which additional capital stock might be issued, passing references have been made to the accompanying control exercised over the amount of capital stock that might be issued. It seems advisable at this point to summarize briefly the development and present extent of this control.¹⁵⁵

Prior to 1894, the regulatory commissions of Massachusetts had no direct control over the amount of securities that might be issued by public service corporations. Limitations on the amounts of securities that might be issued, however, had long been a prevailing characteristic of the Massachusetts policy. The first restrictions placed upon the amount of securities that might be issued were the limits set by the charters and articles of association of the individual companies.¹⁵⁶ With the growth of communities and increase in demand for the services of public utilities, such limitations were found to be detrimental to the best interests of the public. Thus shortly after the establishment of the Board of Railroad Commissioners, laws were passed authorizing the commissioners to permit street railway companies to increase their capital stock beyond those limits when necessary to raise funds to enable the company to expand its plant or improve its property.¹⁵⁷

¹⁵⁴ Barron, *op. cit.*, p. 6.

¹⁵⁵ The restrictions placed on the amount of the issue of securities other than capital stock will be discussed when the regulation of those other securities is under consideration.

¹⁵⁶ See Mass. Acts of 1851, c. 133, §§ 8, 16; 1855, c. 146; G. S., c. 61, § 6; 1874, c. 29, § 15; 1887, c. 366.

¹⁵⁷ "The directors of any street railway company . . . may from time to time petition the board of railroad commissioners for such increase of capital as may be necessary for the purposes of the company, beyond the amount fixed and limited by its articles of association, or by the acts of the legislature concerning the same, and upon such petition, after an examination of the assets of the company and its liabilities other than capital stock, and a hearing of the petitioners, the board of railroad commissioners may allow such necessary increase as they may see fit, to an amount which shall not exceed the value of the property of the company, and a certificate showing the amount of such increase shall forthwith be filed in the office of the secretary of the commonwealth." Mass. Acts of 1874, c. 29, § 15.

As has been pointed out,¹⁵⁸ the motive for the regulation of the issue price was the desire to keep the stock paying dividends at a minimum. Thus all of the laws relative to the issue price of new stock contained provisions limiting the increase to the number of shares necessary to produce the amount of capital required for the purposes of the increase.¹⁵⁹ This restriction applied to all utilities subject to regulation regarding the issue price at which their stock might be increased.¹⁶⁰ The general policy of the Massachusetts laws also embodied a further restriction upon the amount of securities that might be issued by a public utility; namely, that the stock might not be increased to an amount which would exceed the fair value of the property of the utility as determined by the appropriate commission.¹⁶¹ The commissions could require that the impairment of capital be made good only as a condition of an order approving an issue of new stock or bonds.¹⁶² Because of the difficult position in which the street railways found themselves after the electrification of their roads, the application of this requirement to keep the capital unimpaired as a condition of issuing

¹⁵⁸ *Supra*, pp. 31 *et seq.*, 34 *et seq.*, and 55.

¹⁵⁹ "A railroad corporation authorized to increase its capital stock or to issue additional shares of stock for any purpose, shall, if the cash market value of its shares exceeds the par value thereof, sell and dispose of all shares of such new or additional stock for the benefit of the corporation in the manner provided in this act; and only such number of shares shall be issued as, so sold and disposed of, will produce the amount necessary for the purposes for which such increase or issue is duly authorized by law." Mass. Acts of 1871, c. 392, § 1.

¹⁶⁰ See Mass. Acts of 1871, c. 392, § 1; 1874, c. 372, § 46; 1873, c. 305; P.S., c. 106, § 39; 1893, c. 315, § 1; 1894, c. 472, § 1.

¹⁶¹ Mass. Acts of 1874, c. 29, § 15; 1887, c. 366; 1896, c. 409; R. L., c. 109, § 26. See also 21st Ann. Rep. Mass. R. C. 46-47 (1889), where the board said: "It is the general policy of our law that there shall be no watering of stock; and the interpretation which the Board has put upon the Act of 1887 is, that that act was intended to prescribe a further limitation; namely, that when authority to increase capital stock is asked, it must be shown that the existing capital stock does not exceed the net value of the existing property of the company."

"It will be seen that a railway company in order to keep itself in a condition which will justify the issuance of authority to increase its capital, must by renewals and repairs keep its property in such good condition that it can show not only cost but also net value to represent its capital stock."

¹⁶² See *Childs v. Krey*, 199 Mass. 352, 356 (1908).

new securities, was repealed in 1902 in so far as it related to those utilities.¹⁶³

The conditions and events antecedent to, and responsible for, conferring upon the commissions in 1894 control over the amount of securities that might be issued by public service corporations have already been described.¹⁶⁴ In that year it was provided that the security issues of all public service companies should be limited to the amount determined by the appropriate commission to be reasonably necessary for the purpose or purposes for which the issue was authorized. For railroads and street railways the amount of securities reasonably requisite was subject to determination by the Board of Railroad Commissioners;¹⁶⁵ for the gas and electric light companies, by the Board of Gas and Electric Light Commissioners;¹⁶⁶ and for telephone, telegraph, aqueduct and water companies, by the Commissioner of Corporations.¹⁶⁷ The restriction of the issue of new securities to the amounts determined by the Department of Public Utilities to be reasonably requisite for the purposes approved, is still a part of the present laws regulating the capitalization of public service corporations.¹⁶⁸

Limitations on the Issuance of Preferred Stocks

The issuance of preferred stocks by Massachusetts corporations had been permitted only since 1902, and, so far as public utilities are concerned, has been surrounded by restrictions relating to the procedure, the proportion to be kept between the preferred and common stocks, the terms of preference, etc. In the matter of procedure, it was provided that preferred stock might be issued upon the affirmative vote of two-thirds in interest of the

¹⁶³ Mass. Acts of 1902, c. 370.

¹⁶⁴ *Supra*, pp. 34 *et seq.*

¹⁶⁵ Mass. Acts of 1894, c. 462; 1906, c. 463, Pt. II, §§ 65, 66; 1913, c. 784, § 16.

¹⁶⁶ *Ibid.*, 1894, c. 450; 1914, c. 742, § 39. For interpretations of the "anti-stock-watering" laws of 1894, particularly as applied to gas and electric light companies see *Attorney-General v. Massachusetts Pipe Line Gas Co.*, 179 Mass. 15, 20, 21 (1901); and *Fall River Gas Works Co. v. Board of Gas and Electric Light Commissioners*, 214 Mass. pp. 529, 536 *et seq.* (1913).

¹⁶⁷ Mass. Acts of 1894, c. 452.

¹⁶⁸ See Mass. G. L., c. 159, § 52; c. 160, § 48; c. 161, §§ 25, 28; c. 164, §§ 14, 18; c. 166, § 4; and 1921, c. 230, § 2.

outstanding stock and upon the approval of the proper regulatory commission.¹⁶⁹ The preferred stock might be issued or increased for any lawful purposes for which capital stock might be increased.¹⁷⁰

The amount of preferred stock to be issued has been limited to the amount of general or common stock outstanding at the time.¹⁷¹ Railroads,¹⁷² street railways,¹⁷³ and hydro-electric companies,¹⁷⁴ however, might, with the approval of the appropriate commission, issue preferred stock to a maximum of twice the amount of the outstanding common stock. The issuance of such preferred stock by any corporation has been declared to be subject to all the provisions of law governing the issue of capital stock by such corporation.¹⁷⁵ There have been no special statutory provisions relating to the par value or selling price of preferred shares, so that presumably this has been left to the determination of the directors of the issuing corporation, subject to the approval of the appropriate commission. In disposing of an increase of preferred stock, it has been prescribed that the new shares should be offered first to the common stockholders, unless the common stockholders voted otherwise and the commission approved; any unsubscribed shares could then be offered to the preferred stockholders; and finally, any remainder could be disposed of at public auction as in the case of the common stock.¹⁷⁶ Whenever the vote creating the preferred stock so provided, the holders of the preferred stock might be entitled to have a proportionate share of an increase of common stock offered to them.¹⁷⁷

¹⁶⁹ Mass. Acts of 1902, c. 441; 1903, c. 437, § 95; 1913, c. 764, §§ 1, 5; 1914, c. 742, §§ 30, 199; 1915, c. 299, § 1; G. L., c. 155, § 18; c. 160, § 43.

¹⁷⁰ *Ibid.*

¹⁷¹ Mass. Acts of 1902, c. 441, § 1; 1913, c. 764, § 5; 1914, c. 742, §§ 30, 199; G. L., c. 155, § 18.

¹⁷² Mass. Acts of 1915, c. 299, § 3; G. L., c. 160, § 45.

¹⁷³ Mass. Acts of 1913, c. 764, §§ 4, 5; G. L., c. 161, § 35.

¹⁷⁴ Mass. Acts of 1916, c. 64.

¹⁷⁵ *Ibid.*, 1902, c. 441; G. L., c. 155, § 19; c. 160, § 43.

¹⁷⁶ For an example of the provisions of law describing the method of disposal of an issue of preferred shares by street railways, see Mass. Acts of 1902, c. 441, § 1; 1913, c. 764, §§ 4, 5; G. L., c. 161, § 35.

¹⁷⁷ See Mass. Acts of 1902, c. 441, § 1; 1913, c. 764, §§ 1, 5; 1915, c. 299, § 3; G. L., c. 160, § 46; c. 161, § 35.

The preferences and voting power of the preferred stock might be fixed in the agreement of association on organization, or after organization by a two-thirds vote of all the stock.¹⁷⁸ It was provided that there might be such limitations put on the voting power and preferences of the preferred stock as might be approved by the appropriate commission.¹⁷⁹ If there were no limitations specified, it was to be assumed that the preferred shares had the same voting power as the shares of common stock. But no class of preferred stock might be created which was not, in a manner approved by the commission, "made subordinate in respect to dividends or to participation in the proceeds of liquidation to the preferences of every previously created class of preferred stock."¹⁸⁰ Thus if the preferred stock of a corporation was not all authorized at one time, there would necessarily be several different classes of such stock outstanding.

In 1913, a special provision applicable to street railways was enacted whereby, upon terms determined by a vote of two-thirds of the outstanding common stock and approved of by the Board of Railroad Commissioners, preferred stock might be issued in lieu of outstanding common shares, provided that the aggregate par value of such preferred shares did not exceed the par value of the common shares retired.¹⁸¹ Thus far the local utilities—street railways, gas and electric light companies, etc.,—have shown little disposition to issue preferred shares; and preferred stock, where it exists, constitutes but a small part of the utility's capitalization.¹⁸²

Limitations upon the Amount of Funded Debt

The restrictions placed upon the power of public utilities to issue stock have been accompanied by limitations upon the funded

¹⁷⁸ See Mass. Acts of 1902, c. 441, § 1; 1903, c. 437, § 95; 1913, c. 764, §§ 4, 5; 1914, c. 742, §§ 30, 199; 1915, c. 299; G. L., c. 155, § 18; c. 160, § 45; c. 161, § 35.

¹⁷⁹ *Ibid.*

¹⁸⁰ Mass. Acts of 1913, c. 764, § 4; 1915, c. 299, § 3; G. L., c. 160, § 45; c. 161, § 35.

¹⁸¹ Mass. Acts of 1913, c. 764, § 2; G. L., c. 161, § 33.

¹⁸² Consult Appendix, Tables I to IV.

debt to be incurred.¹⁸³ These restrictions have taken the form of defining the terms of the mortgage, limiting the amount of the debt, specifying the par value, the issue price and interest rates, limiting the terms of the bonds, etc. Provision was made for the issue of bonds by public service corporations only in the latter part of the nineteenth century,—railroads in 1854,¹⁸⁴ gas and electric light companies in 1886,¹⁸⁵ and street railways in 1889.¹⁸⁶ In general, it may be said that a bond issue must be authorized by the vote of the stockholders at a meeting called for the purpose. In the case of railroad bond issues, it has long been a provision of the law that no mortgage should be executed without securing equally all previously issued and outstanding bonds, coupon notes, etc.¹⁸⁷

The general policy of Massachusetts has been to limit the amount of bonds that might be issued to the amount of the capital stock actually paid in. This restriction was placed upon manufacturing corporations in 1836,¹⁸⁸ and extended to railroads in 1854,¹⁸⁹ and to gas and electric light companies in 1886.¹⁹⁰ Since 1851, the maximum debt that telegraph companies might incur has been limited to one-half of the paid-in capital stock.¹⁹¹ These limitations did not apply to the issue of bonds for the purpose of paying or refunding at maturity bonds that had been lawfully issued.

For a number of years, the street railway corporations were ex-

¹⁸³ This discussion of the limitations upon the indebtedness that may be incurred is confined to a consideration of those evidences of indebtedness which have a term of more than twelve months from the date thereof. It is virtually a universal practice to exempt from regulatory control all evidences of indebtedness running for less than twelve months. See *supra*, pp. 21 *et seq.*

¹⁸⁴ Mass. Acts of 1854, c. 286.

¹⁸⁵ *Ibid.*, 1886, c. 346.

¹⁸⁶ *Ibid.*, 1889, c. 316.

¹⁸⁷ *Ibid.*, 1874, c. 372, § 51; 1912, c. 725, Pt. II, § 4; 1913, c. 784, § 15.

¹⁸⁸ Mass. R. S., c. 38, § 25.

¹⁸⁹ Mass. Acts of 1854, c. 286, § 1; 1874, c. 372, § 49; 1876, c. 170; 1897, c. 337, § 2; 1906, c. 463, Pt. II, § 66.

¹⁹⁰ *Ibid.*, 1886, c. 346, § 3; 1890, c. 371; 1914, c. 742, §§ 38, 199; G. L., c. 164, § 13.

¹⁹¹ Mass. Acts of 1851, c. 247, § 4; P.S., c. 109, § 8; G. L., c. 166, § 2. The severity of this restriction was doubtless one of the reasons why the American Bell Telephone Company left Massachusetts in 1900. See *supra* at pp. 46 *et seq.*

ceptions to the general rule limiting the debt of corporation to the amount of their paid-in capital stock. In 1889, the law which authorized street railways to issue mortgage bonds required that the amount of the issue must be approved by the Board of Railroad Commissioners.¹⁹² And it was provided, further, that the commission should not authorize an issue of such bonds unless, upon examination, it found that the value of the property of the company, excluding the franchise, equaled or exceeded the amount of the outstanding capital stock plus the debt.¹⁹³ This provision as to the equality of assets and liabilities remained in force until 1902 when, because of the financial stress upon the railways at the time of their electrification, it was repealed.¹⁹⁴ The Board of Railroad Commissioners in their report for 1892 protested against the absence of a maximum limitation upon the relative amount of bonds that might be issued by a street railway, and stated that it would not approve of bond issues which would result in the debt of the corporation exceeding the paid-in capital stock.¹⁹⁵ Finally, in 1906, an enactment was passed limiting the bonds, notes, and other

¹⁹² Mass. Acts of 1889, c. 316, § 1.

¹⁹³ ". . . and no such issue shall be authorized unless in the opinion of such board the value of the constructed tracks, the equipments and the other real and personal property of the company, taken at a fair value for railway purposes, and excluding the value of the franchise, equals or exceeds the amount of the capital stock outstanding and the debt." *Ibid.*

It was provided that this act should not apply to street railways that had issued preferred stock, the inference being that street railways with preferred stock outstanding might not issue mortgage bonds. *Ibid.*, § 4. See also Mass. R. L., c. 112, § 23.

¹⁹⁴ Compare Mass. Acts 1889, c. 316; 1892, c. 192; R. L., c. 112; § 23; 1902, c. 370.

¹⁹⁵ "There is no such limitation, and no limitation whatever, upon the total amount of bonds which a street railway company may issue. Bonds secured by *mortgage* of a part or the whole of the railway and other property of the company, can be issued only to an amount and for purposes approved by the Board (Stats. of 1889, chap. 316; 1892, chap. 192). The amount of mortgage bonds which the Board may so approve is not, however, limited to the amount of the paid capital, and issues of such bonds in excess of the paid capital have heretofore in some cases been approved by the board, presumably before electric railway operations had assumed their present speculative phase. During the last year, however, the Board has acted upon the rule that it would not approve of any such issue in excess of the capital stock actually paid in." 24th Ann. Rep. Mass. R. C. 109 (1892).

evidences of indebtedness of street railways to the amount of the capital stock actually paid in.¹⁹⁶

The railroads and street railways have had more liberal treatment in the matter of the amount of debt that they might incur than have the other utilities. For example, in 1908 it was provided that in computing the amount of capital stock, all cash premiums paid in should be added thereto and that this sum should be taken as the limit of the debt.¹⁹⁷ The severity of the restriction on railroads was lessened in 1912 by the enactment of a law permitting railroads, with the approval of the commission, to issue bonds, notes, and other evidences of indebtedness to twice the amount of the paid-in capital as computed under the law of 1908.¹⁹⁸

In 1914, the restrictions limiting the debt of street railways to the amount of paid-in capital was further liberalized. The street railways were faced with the necessity of making large expenditures for replacements and renewals, but they had accumulated no sufficient depreciation reserves. A law was enacted whereby such companies might, when such was authorized by the public service commission as consistent with the public interest, incur

¹⁹⁶ Mass. Acts of 1906, c. 463, Pt. III, § 108.

¹⁹⁷ "In computing the amount of capital stock of a railroad corporation, electric railroad, street railway or elevated railway company for the purposes of determining the maximum amount of bonds, coupon notes or other evidences of indebtedness, payable at more than twelve months from the date thereof, . . . there shall be added to the par value of the capital stock all cash premiums paid into the corporation on all shares issued by such corporation or company subsequent to July 9, 1894, . . ." *Ibid.*, 1908, c. 620. See also Mass. G. L., c. 159, § 53.

¹⁹⁸ Mass. Acts of 1912, c. 725, Pt. II, §§ 4, 5. See also *Ibid.*, 1913, c. 784, § 15; 1915, c. 303.

The present law relative to railroads reads: "Its bonds, notes or other evidences of indebtedness, payable at periods of more than one year from the date thereof, may be issued by any such corporation to an amount which, when added to the amount of all its then outstanding bonds, notes or other evidences of indebtedness . . . shall not cause the aggregate amount of all such bonds, notes or other evidences of indebtedness to exceed the amount of the capital stock of the corporation actually paid in at the time, as determined under sec. 53 of ch. 159, unless any excess above such amount shall have been previously approved by the department as consistent with the public interest . . . ; but in no event shall the aggregate amount of all bonds, notes or other evidences of indebtedness of which it is the maker exceed twice the amount of said capital stock as determined as aforesaid, . . ." Mass. G. L., c. 160, § 47.

indebtedness exceeding the amount of the paid-in capital by twenty per cent,—the additional twenty per cent to be used to provide funds for the required renewals.¹⁹⁹ It was required that the commission provide for the retirement of such indebtedness, by the creation of a sinking fund or otherwise, within a period of ten years. The charges for renewals and reconstruction are, properly considered, operating expenses, and should be cared for from earnings. But where the earnings were insufficient,—this law was intended to enable the street railways to spread this unusual expense over a period of years without being forced to rely upon the use of short-time notes.²⁰⁰ Street railways are still permitted to issue bonds to such amounts “beyond the amounts fixed and limited by its agreement of association or its charter, or by any special law, as the department shall determine will realize the amount which has been properly expended or will be properly required. . . .”²⁰¹ to enable the railway to render adequate service.

The enactments of 1894 which gave the regulatory commissions

¹⁹⁹ The act in question read that the limitation of a street railway's debt to capital stock outstanding should not “. . . apply to bonds, coupon notes or other evidences of indebtedness payable at periods of more than twelve months after the date thereof, in addition to, and not exceeding twenty per cent of the amount so computed, which shall be authorized as consistent with the public interest by the public service commission, and which shall be subject to such requirements as to a sinking fund or other method of retiring said evidences of indebtedness within a period not exceeding ten years, as the commission may prescribe, to provide means for, or to fund the actual cost of replacement or reconstruction of any existing property; . . .” Mass. Acts of 1914, c. 671.

²⁰⁰ “This statute [St. 1914, c. 671] is unique in the history of the regulation of public utility capitalization in this commonwealth, in that it permits evidences of indebtedness running for periods of more than twelve months to be issued, not for the purpose of meeting the cost of additions or improvements to the property, but for the purpose of paying for renewals which are ordinarily and properly regarded as a part of the expense of operation. Its general purpose, apparently is to make it possible for street railway companies faced with the immediate need of unusually large expenditures for replacements or reconstruction, and having no adequate depreciation fund, to spread the burden over a series of not exceeding ten years without the use of short-time notes, instead of charging it at once to operating expense. The privilege in this way to fund such expenditures, however, may be exercised under the statute, only at the discretion of the Commission when found to be ‘consistent with the public interest.’” 4th Ann. Rep. Mass. P. S. C., 251, 252; P. U. R., 1917A, 889, 891 (1916).

²⁰¹ Mass. G. L., c. 161, § 25. See also § 29.

control over the amount of stock that might be issued by public utilities²⁰² also provided that the utilities must secure the approval of the commissions as to the amount of bonds that they might issue.²⁰³ In 1897, the requirement of commission approval of the amount of securities was extended to cover "coupon notes and other evidences of indebtedness payable at periods of more than twelve months from the date thereof" issued by railroads and street railways;²⁰⁴ and in 1921, this restriction was extended to cover the issue of coupon notes and other evidences of indebtedness by gas and electric light companies, and telephone and telegraph companies.²⁰⁵ Also since 1894, the regulatory commissions in approving an issue of securities have been required to specify the amounts of the securities to be issued for the respective purposes for which the securities were authorized, and the utilities have been forbidden to apply the proceeds to any purposes not so specified.²⁰⁶

There appears to be no definitely established par value for public utility bonds. In the act authorizing railroads to issue mortgage bonds, it was stipulated that they should have a par value of not less than \$100 each;²⁰⁷ and this figure has apparently been generally accepted as convenient.

The interest rate carried by bonds and the price at which they sell are mutually related; and while one may be fixed and determined by the issuing company or by law, the other factor will be the result of the interaction of the predetermined factor and the market conditions. For this reason it is generally considered unwise to attempt to place any limitation upon the price at which bonds may be sold; and to confine regulation, if such be necessary, to requiring the utility to sell its bonds as advantageously as possible

²⁰² *Supra*, pp. 36 *et seq.*

²⁰³ Mass. Acts of 1894, c. 450, c. 452, c. 462. See also *Ibid.*, 1914, c. 742, § 39; G. L., c. 164, § 14; c. 166, § 4.

²⁰⁴ Mass. Acts of 1897, c. 337, § 2; 1906, c. 463, Pt. II, §§ 65, 258, Pt. III, §§ 107, 158; 1912, c. 725, Pt. II, § 4; 1913, c. 784, § 16; G. L., c. 160, § 48; c. 161, § 28.

²⁰⁵ Mass. Acts of 1921, c. 230, §§ 1, 2.

²⁰⁶ *Ibid.*, 1894, c. 450, c. 452, c. 462. See also Mass. G. L., c. 160, § 48; c. 161, § 28; c. 164, § 14; c. 166, § 4.

²⁰⁷ Mass. Acts of 1854, c. 286, § 1; P.S., c. 112, § 62.

under the prevailing market conditions,—something that is usually guaranteed by the self-interest of the company. Where the bonds are sold at a discount, however, the best practice dictates that the discount be amortized during the life of the bonds.²⁰⁸ Except for the gas and electric light companies, the Massachusetts statutes have not prohibited corporations from issuing bonds at a discount.²⁰⁹ In 1886, gas companies—and later electric light companies—were forbidden to issue bonds at less than par.²¹⁰ The practice of issuing bonds at less than par, however, has been discouraged by the Massachusetts commissions.

The Massachusetts statutes have also placed restrictions upon the interest rate that bonds might bear. From 1854 to 1874, the interest rate of bonds issued by railroads was limited to six per cent;²¹¹ while from 1874 to 1912, the maximum rate was fixed at seven per cent.²¹² Similarly from 1889 to 1902, street railways

²⁰⁸ "It seems to be generally agreed that no limitation should be placed on the price at which bonds can be sold, but any discount should be cancelled or amortized during the life of the bonds by the appropriation each year, out of annual income or surplus accumulated after the issue of the bonds, of not less than the proportionate amount of the discount." *U. S., Report of the Railroad Securities Commission*, 1911, pp. 28-29.

²⁰⁹ In approving an issue of bonds by a street railway company, the commissions have always had the power to specify the minimum price at which the bonds might be sold. Mass. Acts of 1889, c. 316, § 1; 1910, c. 536; G. L., c. 161, § 25.

Since 1854 (Acts of 1854, c. 286, § 5), there has been a provision in the statutes to the effect that the bonds of railroads shall be valid and collectible even though issued and sold at less than par (Mass. G. L., c. 160, § 50).

²¹⁰ "No gas company, unless specially authorized by the legislature, shall hereafter issue any bonds at less than the par value, nor for an amount exceeding its capital actually paid in, and applied to the purpose of its incorporation. . . . A company may, upon vote of a majority in interest of its stockholders, at a meeting duly called for the purpose, issue bonds, in accordance with the provisions of this section, to bear interest at not exceeding six per cent per annum, and may secure the payment of principal and interest which shall accrue, by a mortgage of its franchise and other property." Mass. Acts of 1886, c. 346, § 3.

See also *Ibid.*, 1899, c. 371; 1894, c. 450, § 1; 1914, c. 742, §§ 38, 199; G. L., c. 164, § 13; 1922, c. 223; 1924, c. 173.

²¹¹ Mass. Acts of 1854, c. 286.

²¹² *Ibid.*, 1874, c. 372, § 49; P.S., c. 112, § 62; R. L., c. 111, § 63; 1906, c. 463, Pt. II, § 48; 1912, c. 725, Pt. II, § 5. There has been no mention of a restriction upon the interest rate that bonds might carry since the act of 1912 and in the General Laws, compiled in 1921, this restriction was also omitted.

might not issue bonds bearing interest at more than six per cent per year.²¹³ In 1906 the provisions governing railroads were applied to street railways, and they were permitted to issue bonds at a maximum rate of seven per cent.²¹⁴ In 1910, however, it was provided that the Board of Railroad Commissioners might prescribe the minimum price at which bonds could be sold.²¹⁵ From 1886 to 1922, gas and electric light companies, in addition to being prohibited from selling bonds at less than their par value, were forbidden to issue bonds carrying a higher rate of interest than six per cent.²¹⁶ In 1922, it was provided that the bonds of gas and electric light companies could bear interest at such a rate as the Department of Public Utilities might approve.²¹⁷

The term for which some classes of public utilities might issue bonds has been subject to regulation. Until 1887, railroads were prohibited from issuing bonds running for more than twenty years.²¹⁸ In that year it was provided that railroads could issue bonds with a term of fifty years.²¹⁹ In 1889 it was provided that the maximum term of the bonds of street railway companies

²¹³ Mass. Acts of 1889, c. 316, § 1; 1892, c. 192; R. L., c. 112, § 23. In 1902, R. L., c. 112, § 3 was repealed (Acts of 1902, c. 370).

²¹⁴ Mass. Acts of 1906, c. 463, Pt. III, § 103; 1910, c. 536. All mention of a restriction upon the interest rate that might be borne by street railway bonds was omitted from the General Laws in 1921.

²¹⁵ Mass. Acts of 1910, c. 536 G. L., c. 161, § 25. When the commission finds it necessary to authorize the issue and sale of bonds of a face value in excess of the amount determined by it to be properly required or to have been properly expended it may require the establishment of a sinking fund to amortize the excess.

²¹⁶ Mass. Acts of 1886, c. 346, § 3; 1890, c. 371; 1894, c. 450, § 1; 1914, c. 742, § 38; G. L., c. 164, § 13.

²¹⁷ Mass. Acts of 1922, c. 223; 1924, c. 173. Gas and electric light companies are still required to issue bonds at not less than par. An exception was made where bonds are issued under a mortgage existing on June 2, 1920, by whose provisions the rate of interest on bonds issued thereunder is fixed. In such a case the bonds may be issued "at a price and with provisions for amortization of any discount approved by the department as consistent with the public interest."

²¹⁸ *Ibid.*, 1854, c. 286; 1874, c. 372, § 49; P.S., c. 112, § 62.

²¹⁹ Mass. Acts of 1887, c. 191; R. L., c. 111, § 63; 1906, c. 463, Pt. II, § 48; 1912, c. 725, Pt. II, § 5. No limitation of the term of railroad bonds was given in the General Laws compiled in 1921.

should be twenty years.²²⁰ In 1906, the provisions applicable to railroads were extended to street railways,—bonds might be issued for a maximum term of fifty years.²²¹ At the present time, however, there appear to be no restrictions as to the length of time for which public utility bonds may be issued.

There has been little disposition on the part of the Massachusetts commissions to exercise any authority over the manner in which bonds are sold. In the case of gas and electric light companies, there has been a requirement in the statutes since 1919 to the effect that a company issuing bonds must “invite proposals for the purchase thereof by advertisements.” But there is no compulsion upon the utility to accept any bids it may receive; and so long as the par value is actually received in cash, the directors may dispose of the issue in such manner and upon such terms as they consider advisable.²²²

Prohibition of Stock or Scrip Dividends

The prohibition of stock and scrip dividends was the earliest limitation placed upon corporate stock issues in Massachusetts. In 1868, a law was passed forbidding railroad, telegraph, and gas companies to issue stock or scrip dividends or to issue any additional stock unless the par value was paid in cash.²²³ In 1894 these same restrictions were placed upon the other public utilities,—telephone, electric light, aqueduct, and water companies.²²⁴ The purpose of the law was to prevent stock watering; and particularly to prevent the utilities from issuing additional stock to

²²⁰ Mass. Acts of 1889, c. 316, § 1. This was repeated in the laws down through 1901—see Mass. R. L. c. 112, § 23; but was repealed in 1902—see Mass. Acts of 1902, c. 370.

²²¹ Mass. Acts of 1906, c. 463, Pt. III, § 103. As with the railroads, so with the street railways, no limitations on the term of their bonds were mentioned in the General Laws (1921).

²²² “It [the company] may, however, reserve the right to reject any and all bids. If no such proposal is accepted, it may sell the whole or any part of the bonds to any person or corporations in such manner, at such times, and upon such terms, but in no case at less than the par value thereof to be actually paid in cash, as its directors shall determine.” Mass. Acts of 1919, c. 104, § 1; G. L., c. 164, § 15.

²²³ Mass. Acts of 1868, c. 310.

²²⁴ *Ibid.*, 1894, c. 350, § 1.

represent earnings reinvested in the property.²²⁵ This law had the support of the regulatory bodies, and all the commissions have been united in praising the beneficial effects of its enforcement.²²⁶ These provisions are still a part of the present Massachusetts laws.²²⁷

Limitations on Holding the Stock and Guaranteeing the Bonds of Other Corporations

The general policy of Massachusetts is opposed to public utilities holding the stock or guaranteeing the bonds of other corporations. An exception has been made of railroads which, for six specific purposes, have been given the right to hold the stock or bonds of, or guarantee the bonds or dividends of certain other corporations.²²⁸ Where the railroad exercises this right, it is provided that the amount of bonds thus held or guaranteed plus the amount of its own bonds must not exceed the amount of indebtedness it may legally incur.²²⁹ Thus with the affirmative vote of the stock-

²²⁵ United Electric Light Company, 33d Ann. Rep. Mass. G. & E. L. C. 37, 41; P. U. R. 1917E, 868, 872 (1917).

²²⁶ "This requirement was originally applied, in 1868 to railroad, telegraph and gas companies, but has since been extended to other public-service corporations, and has stood as the avowed policy of the Commonwealth respecting companies of this character. Owing to the important relation which the capital of a company, monopolistic in its character, sustains to the price charged for its service, it is difficult to overestimate the wisdom and importance of this provision in the law. Originally adopted to put a stop to the growing tendency to represent in actual capital stock all the profits retained by the company and invested in its plant, and to prevent placing the contributions of the public upon the same level with those made by the stockholders, its strict observance and a general recognition of the important principles underlying it have created conditions favorable not only to reductions in price and improvement in the quality of service but to making the stocks of these corporations attractive to the investing public. The Board desires to give its most earnest endorsement to a continuance of the policy which the section cited declares, believing that experience has fully demonstrated its wisdom and value." 25th Ann. Rep. Mass. G. & E. L. C. 11-12 (1909).

²²⁷ Mass. G. L., c. 160, § 56; c. 161, § 36; c. 164, § 11; c. 166, § 9.

²²⁸ "A railroad corporation, unless authorized by the general court or by the six following sections, shall not directly or indirectly subscribe for, take or hold the stock or bonds of or guarantee the bonds or dividends of any other corporation; . . ." *Ibid.*, c. 160, § 64. See also Mass. Acts of 1868, c. 347, § 1; 1872, c. 53, § 17; c. 180, § 2; 1874, c. 372, § 53; 1906, c. 463, Pt. II, § 258.

²²⁹ Mass. G. L., c. 160, § 64.

holders, a railroad may take stock in a telegraph company "to an amount not exceeding \$200 for each mile of railroad so connected;"²³⁰ guarantee the bonds of a steamship company incorporated in the state "to an amount not exceeding five per cent of its capital stock;"²³¹ become an associate in a grain elevator company;²³² guarantee the bonds of another connecting railroad, provided "the bonds so guaranteed do not exceed the amount of the capital stock of such other corporation actually paid in cash by its stockholders;"²³³ aid in the construction of branch lines;²³⁴ and invest in the securities of terminal companies.²³⁵

Regulation of Security Issues in Consolidations

A very liberal attitude toward consolidations has prevailed in Massachusetts. Previous to 1879, no lease, sale, or consolidation could be entered into by street railway companies except with the special permission of the legislature.²³⁶ Since that time, consolidations have been permitted subject to the approval of the railroad commission, or its successors. The only restriction has been that the consolidation shall not result in any increase in the aggregate of the stock and debt of the companies.²³⁷ The usual process has been for the purchasing company to exchange its securities on a share-for-share basis for the securities of the company that is being absorbed. Before granting their approval, the regulatory commissions have tried to protect the public interest by providing that the consolidation should result in no diminution in the quantity or quality of the service, nor any increase in the price thereof. Gas and electric light companies have been permitted to

²³⁰ Mass. Acts of 1874, c. 372, § 54; 1906, c. 463, Pt. II, § 58; P.S., c. 112, § 75; G. L., c. 160, § 65.

²³¹ Mass. Acts of 1868, c. 347; 1874, c. 372, § 55; 1906, c. 463, Pt. II, § 59; P.S., c. 112, § 76; G. L., c. 160, § 66.

²³² Mass. Acts of 1874, c. 384, §§ 1, 2; P.S., c. 112, §§ 77, 78; 1906, c. 463, Pt. II, § 60; G. L., c. 161, § 67.

²³³ Mass. Acts of 1870, c. 325, § 4; 1871, c. 384; 1874, c. 372, § 56; P.S., c. 112, § 79; 1906, c. 463, Pt. II, § 61; G. L., c. 160, § 68.

²³⁴ Mass. Acts of 1874, c. 351, § 4; c. 372, § 57; P.S., c. 112, § 80; 1906, c. 463, Pt. II, § 62; G. L., c. 160, § 69.

²³⁵ Mass. Acts of 1912, c. 725, Pt. II, § 6; G. L., c. 160, § 70.

²³⁶ R. H. Whitten, *Public Administration in Massachusetts*, p. 117.

²³⁷ Mass. G. L., c. 161, § 64.

consolidate on a similar basis, subject to the same restriction that the aggregate of the securities outstanding should not be increased.²³⁸

Usually the consolidations have come as a result of individuals controlling a highly prosperous company buying all of the stock of some unsuccessful company, presumably at a very low price. The stock of the less successful company was then exchanged on a share-for-share basis for the stock of the prosperous company. The sole motive behind the consolidation has all too frequently been the desire to have a larger stock base upon which the successful company might distribute dividends, and the process itself has in effect been the issuance of new stock of the successful company for less than its market or par value in cash.²³⁹

Three possible objections have been raised to this process of consolidation of successful and unsuccessful companies on a share-for-share basis.²⁴⁰ In the first place, the stockholders of the unsuccessful company have had to negotiate at a disadvantage: their only choice has been between retaining the stock of the unsuccessful company which presumably has been paying either a low rate of dividends or no dividends at all and selling their shares at a greatly depreciated value. The stockholders of the unsuccessful company rarely ever profited from the consolidation since they were forced out before the exchange of stock. In the second place, the public served by the successful company might be injured through having to pay more for the service they received than its reasonable cost. As mentioned above, a common motive for consolidation with a less successful company was that the successful utility was earning larger profits than it considered advisable to distribute as dividends and the purchase of the unsuccessful utility allowed the distribution of their surplus earnings over a larger capitalization, thus giving the appearance of a lower dividend rate. If the earnings of the successful company were so large that it was deemed expedient to conceal them, the presumption is that the community served should have been given a reduction in

²³⁸ Mass. Acts of 1906, c. 392; 1908, c. 529, § 4; 1914, c. 742, § 168; G. L., c. 164, § 99.

²³⁹ Bullock, *op. cit.*, p. 387.

²⁴⁰ *Ibid.*, p. 388.

the rates charged. By such consolidations, it became exceedingly difficult, if not impossible, for the first community to secure a reduction in rates to conform to the reasonable cost of their services. If the successful company found itself overburdened by the less successful companies it had absorbed, the communities originally served by it were quite likely to receive poorer service. And, finally, the consolidation was very likely to be used as a device whereby the directors or large stockholders of the successful road benefited at the expense of the large body of stockholders. Thus when a small group purchased the stock of an unsuccessful company and exchanged it at par for stock of the successful utility, it meant that the earnings previously withheld were largely distributed to the few stockholders who were on the inside, and were permanently withheld from the others. The desire of a few for personal profit was thus likely to result in unwise consolidations.

The advantages that accrued to the community served by the less successful company, and the possibilities of economies from such mergers were responsible for the favorable attitude of the regulatory authorities toward such consolidations. The communities served by the unsuccessful company presumably benefited by receiving better service at a lower cost than they could have otherwise secured it, since a part of their expenses were borne by those originally served by the more prosperous company.

The Treatment of Security Issues in Reorganizations

The Massachusetts policy in respect to security issues following reorganizations or the purchase of bankrupt utility properties has been developed chiefly in connection with street railways. In 1894, the various regulatory bodies were given the power to determine the amount of securities that were reasonably required for the purposes for which the securities were authorized.²⁴¹ In the Interstate Consolidated Street Railway case in the following year, the Board of Railroad Commissioners was confronted with the question as to the amount of securities that a street railway company might be authorized to issue for the purchase of other street

²⁴¹ Mass. Acts of 1894, c. 450, c. 452, c. 462. Also *supra*, pp. 58 *et seq.*

railway properties.²⁴² In this instance, the commission decided that the actual cost of the properties to the acquiring company set the maximum limit to the amount of securities that might be issued.²⁴³

In 1900, an act was passed governing specifically the issue of securities on the reorganization or purchase of street railway properties.²⁴⁴ It was provided that the capital of such a company was to be fixed subject to the approval of the commission—presumably at the actual cost of acquisition if the property was sold at a receiver's sale—but that the capital should not exceed the fair cost of replacement, less the amount of any outstanding mortgages to which the property remained subject. In the cases subsequent to this statute and its amendments, the commission has interpreted the "fair cost of replacing" the property as equivalent to the "cost of reproduction new less accrued depreciation."²⁴⁵

The Theory and Purposes of the Massachusetts Policy

What has been the theory behind this Massachusetts policy whose characteristics have been here presented? What have been the purposes of the many restrictions which, at various times, have surrounded the issuance of securities by the public utilities in Massachusetts? The purposes of the individual enactments have been indicated here and there throughout the chapter. It seems advisable to pause at this point to formulate some statement regarding the assumptions and purposes underlying this policy.

All regulation of public utilities has the central purpose of keeping the cost of the service to the consumer at the lowest figure

²⁴² Interstate Consolidated Street Railway Company, 27th Ann. Rep. Mass. R. C. 165 *et seq.* (1895).

²⁴³ *Ibid.*; at page 171, the board said: "When, therefore, it becomes necessary under St. 1894, c. 462, to determine the amount of stocks and bonds which is 'reasonably requisite' for the purchase of the railway properties in question, it seems to be clear that the Board can properly authorize only such an amount as equals at par the cash actually paid on account of their acquisition, or, in other words, their actual cost. . . ."

²⁴⁴ Mass. Acts of 1900, c. 381, § 4. The same provisions were repeated in Acts of 1906, c. 463, Pt. III, § 145(n).

²⁴⁵ Re Withington, 4th Ann. Rep. Mass. P. S. C. 259; P. U. R. 1917B, 410, 411-412 (1916).

consonant with satisfactory service. This particular phase of the Massachusetts regulation has concentrated on keeping the dividend burden at the lowest possible point.²⁴⁶ The legislation has proceeded upon the assumption that the rates should be largely determined by estimating a fair percentage upon the capital issues of the utility, which, in the public interest, should be strictly limited to the amount requisite for satisfactory and efficient service.²⁴⁷ Starting with this theory, all the laws relative to security issues were addressed to keeping the capitalization of the utilities as low as possible. Competition among utilities was avoided to prevent unnecessary duplication of capital equipment.²⁴⁸ At the inception of the corporation, the attempt has always been to restrict the original issue of capital stock to the amount actually invested by the stockholders. The increase of capital stock has been held at a minimum in two ways: by authorizing only the amounts reasonably required for the purposes at hand, and by requiring the utility to realize the requisite amount of money from the smallest number of shares through selling them at a premium when market conditions permitted. To prevent reinvested earnings from being made the basis of dividend charges, stock dividends have been prohibited, and when issued, have been declared void.²⁴⁹ In order that

²⁴⁶ *Report of Commission on Commerce and Industry* (1908), p. 61. Northampton Gas Petitions, 31st Ann. Rep. Mass. G. & E. L. C. 19, 25 (1915).

²⁴⁷ "From the time of the granting of the earliest charters in this Commonwealth to railroad corporations, practically all of our legislation dealing with the rights of public service corporations has gone upon the theory that their capitalization should be limited to actual capital invested and that rates were to be figured upon the capital." *Middlesex & Boston Rate Case*, 2d Ann. Rep. Mass. P. S. C. 99, 109 (1914).

²⁴⁸ One of the early reports of the Board of Gas Commissioners stressed the importance of avoiding the wastes of competition; "Needless outlay, by reason of competition, should be avoided and saved, for when it has been once incurred, and money paid and expended in enterprises not required to supply the public wants, so great is the expectation of gain and so persistent and unyielding the demands of capital for dividends, the remedy is not then easily found or applied, and the evil should be prevented at the outset by keeping the capitalization on the proper basis." 3d Ann. Rep. Mass. G. & E. L. C. 69 (1885).

²⁴⁹ "The prohibition of stock dividends, and the provisions for the sale of additional stock at auction or its distribution to the stockholders at its market value, or, as now, at a price not so low as to be inconsistent with the public interest, are also indications of an early and consistently maintained purpose

the fixed charges might be kept as small as possible, limitations have been placed upon the amount of funded debt that might be incurred. When it has been possible, the commissions have ordered the utilities to secure needed funds by issuing stock rather than bonds.

The following statements by the Massachusetts' commissions serve to crystallize the theory underlying the regulation of security issues. The Board of Gas and Electric Light Commissioners stated that

this body of legislation is plainly designed to allow no capital stock to be issued save for physical property necessary for proper corporate purposes, to keep the authorized increase of capital stock as low as market and other conditions warrant, to compel publicity of corporate affairs, and, on the other hand, to secure the community from the wasteful effects of competition by the exclusion of others from territory already adequately and efficiently supplied, and to provide, upon complaint, a compulsory reduction in price, and so to create a status favorable to low rates and adequate service.²⁵⁰

The entire course of legislation clearly indicates the well-founded conviction that the volume of securities outstanding against any public utility has a potent effect upon both rates and quality of service, since prices are made and maintained to meet the expectations of stockholders as to dividends, and service may be seriously impaired by a continued endeavor to meet those expectations.²⁵¹

The Public Service Commission expressed thus its opinion as to the purpose of this regulation: "Our whole 'anti-stock-watering' public utility code rests on the assumption that rates are to be mainly determined by figuring a fair return on capital, and that, therefore, capital should accurately represent investment, no less and no more."²⁵²

Despite the purpose of this legislation being to avoid any unnecessary charge upon consumers for the payment of dividends,

to prevent surpluses accumulated out of earnings becoming the basis, directly or indirectly, for the issue of stock," Haverhill Gas Light Company, 28th Ann. Rep. Mass. G. & E. L. C. 41, 57 (1912).

²⁵⁰ *Ibid.*, p. 53.

²⁵¹ 29th Ann. Rep. Mass. G. & L. C. 12 (1913).

²⁵² Middlesex & Boston Rate Case, 2d Ann. Rep. Mass. P. S. C., 99, 111 (1914).

Massachusetts has very wisely refrained from any attempt to limit the profit of utilities to a fixed percentage; nor has a high cash dividend been regarded as necessarily indicating extortionate rates. It has been assumed that the normal rate of return was not to be measured by the same rate upon the capital of each company.²⁵³ Indeed such a policy would have been virtually impossible of application where the utilities' stocks had been issued at widely varying premiums. A much more important objection to any specific limitation upon dividend rates is that such restriction would inevitably tend to destroy all incentive to efficient and progressive management. Any arbitrary limitation of profits would place the utility whose high profits result from efficient and economical management upon the same plane with a corporation whose large earnings are due to excessive charges.

*Critical Appraisal of the Massachusetts Regulation of
Security Issues*

What is to be said in critical appraisal of this Massachusetts policy of controlling the capitalization of public service companies? In presenting the historical development of the present provisions of law applicable to security regulation, criticisms have already been passed on the earlier stages of the policy. It remains now to evaluate the restrictions which now govern the issuance of securities by public utilities.

In the first place, the requirement, that the utilities secure the approval of the Department of Public Utilities as to the amount of an issue and purposes for which securities are to be issued, is both necessary and desirable.²⁵⁴ The publicity which accompanies the formal application for the approval of an issue of securities has a salutary effect upon both the utility and the public.

To require that no stock be sold at less than par seems at first an elementary principle of sound finance.²⁵⁵ But to incorporate this in the law as an absolute prohibition, to which no exception may be made, has led, and will inevitably lead, to unfortunate re-

²⁵³ Plymouth Gas Co., 34th Ann. Rep. Mass. G. & E. L. C. 68, 70 (1918).

²⁵⁴ *Supra* pp. 36 *et seq.* and 22 *et seq.*

²⁵⁵ *Supra*, *passim*.

sults in particular cases. Such a rule may make it difficult, if not impossible, for a temporarily unsuccessful company to reestablish itself upon a successful basis. If a utility, whose stock has a market value below par, is prohibited from selling stock at less than par, it must raise any additional capital it may need by the issue of bonds or other evidences of indebtedness. And the more desperate its financial condition, the more the utility is forced into debt and the higher the interest charges upon that debt. Thus in the past when a utility's credit was once impaired, its only hope of rehabilitation frequently lay in receivership and reorganization, or in consolidation with a more successful utility.²⁵⁶ This prohibition doubtless accounted for the relatively large percentage of floating debt in the total capitalization of some Massachusetts utilities.²⁵⁷

The prohibition of the issue of stock at less than par has seemingly tended, in some instances, to encourage the adoption of an unsound dividend policy by the management of some utilities.²⁵⁸ To maintain the market value of the stock at par so that it would be possible to raise money needed for extension and improvements, the executives of the utilities have frequently felt compelled to continue the payment of dividends, even when earnings were insufficient. This procedure has resulted in neglecting renewals and in making no provision for depreciation. The condition of the street railways which necessitated a change in 1914 in the amount of bonded indebtedness that they might incur has already been noted.²⁵⁹

²⁵⁶ Bullock, *op. cit.*, pp. 386-387. See also U. S., *Report of the Railroad Securities Commission*, 1911. At page 26, the Commission expressed the following doubt concerning the wisdom of such restrictions: "If a road whose stock, for any reason whatsoever, sells below par is prohibited from issuing stock at less than par, it means it must raise all its money by bonds. It is compelled to go more and more deeply into debt. The worse the financial position of the road, the stronger is the compulsion and the heavier are the interest charges on the bond. To compel the weaker roads to pursue their present policy of issuing fixed interest-bearing obligations by reason of their inability to sell stock at par may before long, by reason of a large crop of receiverships, result in intensifying the acuteness of the next panic and in prolonging the subsequent business depression."

²⁵⁷ See Appendix, Tables I-IV.

²⁵⁸ Bullock, *op. cit.*, pp. 393-394.

²⁵⁹ *Supra*, p. 66.

Furthermore such a restriction may work out to the disadvantage of the community served by the company unable to issue stock at par. The public's stake in the matter is recognized in the following statement:

The price of securities depends on many factors. Among the more important of these are: the rate of return they command, the security behind them, the nature of the business, the character of the management, public sentiment, legislative policies, the state of the money market, etc. . . . To provide that new security issues must be sold at par, regardless of the conditions, might easily prevent both the construction of new plants and the extension of old ones, and thereby inflict more injury upon a community that actually needs the service than would the slightly higher rates that might be necessary for these services if the securities were sold on a basis upon which the capital could be obtained.²⁶⁰

The law was amended in 1922 in so far as it applied to gas, electric light, and water companies to permit these utilities to issue stock at less than par, when such was approved by the department as consistent with the public interest.²⁶¹ It would seem advisable to extend to other public utilities the right to issue stock at less than par when approved by the department as necessary in the public interest.

There would seem to be no cause for criticizing those provisions of the law which are designed to secure an initial equivalence between the investment and the securities issued at the time of the incorporation of the utility.²⁶²

The acts relative to the increase of stock by public service companies are still the source of much complaint and criticism. This has been due to the clause authorizing the department to withhold its approval of any issue if it thought the price fixed by the directors "so low as to be inconsistent with the public interest."²⁶³ Attention has already been directed to the interpretation placed upon this clause by the regulatory commissions.²⁶⁴ The repeal of

²⁶⁰ H. Erickson, *Regulation of Public Utilities*, pp. 59, 60.

²⁶¹ Mass. Acts of 1922, c. 226, § 1. See also *supra*, pp. 58 *et seq.*

²⁶² *Supra*, pp. 24 *et seq.*

²⁶³ Mass. G. L., c. 159, § 50; c. 164, § 18. See also *supra*, p. 52.

²⁶⁴ *Supra*, pp. 54 *et seq.*

this particular provision of the law has been urged by the Association of Massachusetts Gas Light Companies since 1921, and it would seem that this change might be made with a resultant gain in the effectiveness of security regulation. Most of the objections urged against the "anti-stock-watering" laws of 1894, with the exception of those having to do with the difficulties involved in requiring the commissions to determine the market price, might with equal propriety be urged against this proviso in the law. It is also true that, under the provisions of the laws as amended in 1908 and 1909, the objection that the companies were prevented from raising adequate capital for all necessary corporate purposes cannot be maintained so long as the price approved and fixed by the commission is sufficiently below the current market price to give a valuable subscription right to the stockholders. In general, the commission has approved prices ten to twenty-five points below the current market quotations, depending upon the size of the issue and the conditions of the market. The most serious indictment of the earlier laws still applies to the present provisions: to wit, that the insistence by a public regulatory commission on the sale of new issues of stock at prices higher than par tends to create a new par for purposes of regulation and so to restrict the commission in the exercise of control over rates,—especially where an order for the downward revision of charges would have the effect of reducing the already low yield on stock purchased at high premiums.²⁶⁵ A change in the law, however, even though desirable, is not absolutely essential to accomplish the end in view. All that is needed is for the department to take the stand that it will approve any issue price fixed by the directors of a utility as not inconsistent with the public interest so long as it is not less than par. Such a position would be in conformity with the present provisions of the law.²⁶⁶ The department has not yet taken such a stand; but has repeatedly in-

²⁶⁵ This objection is most serious when the stock of the utility is widely held by the public so that its credit depends upon good opinion of a large number of individuals, and less serious when the majority of the capital stock is closely held by another corporation or by a voluntary association, as is the case with an increasing number of Massachusetts utilities.

²⁶⁶ Although this position would not contravene the literal interpretation of the law, it is too much to expect the Department of Public Utilities to take

creased the issue prices as fixed by the directors of the utilities.²⁶⁷ In January of 1927, the department was called upon to authorize an issue of stock by the Springfield Gas Light Company. The shares had a par value of \$25; the company indicated \$37.50 as the issue price it desired; the department fixed the price at \$45 per share.²⁶⁸

The issue of preferred stock has been so little resorted to by most of the Massachusetts utilities that any objections there may be to the provisions of law governing their issue have not yet become vocal.

What is to be said of the limitations and restrictions that have been placed upon the indebtedness that may be incurred by the utilities in Massachusetts? In general it may be assumed that, in the matter of the indebtedness of a utility, the interests of the owners, the stockholders, and the public are the same. This identity of interests would seem to make detailed regulation of indebtedness unnecessary and superfluous. Railroads are permitted to issue bonds to twice the amount of the outstanding stock.²⁶⁹ There would seem to be no good reason why the law should not be equally liberal toward the other utilities. The provision that the utility must secure the department's approval of the amount of securities to be issued affords ample protection of the public's interest in the matter.

Similarly, legal restrictions upon the interest rate on utility bonds and on the price at which they may be sold are largely needless. There should be adequate publicity regarding the issuance of bonds and other evidences of indebtedness so as to prevent collusion between the directors and any broker to whom the issue might be sold. Bonds may be issued only on the affirmative vote of the

such a stand in view of the long history of the enforcement of the premium requirement both by the present commission and its predecessors, and the previous interpretations of the reasons behind the statutes.

²⁶⁷ The commission continues to increase the issue price fixed by the utilities in spite of the fact that at least two of its members have, since 1922, adhered to the opinion that the so-called premium law "does not tend to keep rates low, but rather the reverse, and that it ought to be repealed." Cf. Mass. House Doc. 1150 of 1927. And there is nothing to indicate that the other commissioners approve these provisions of the law.

²⁶⁸ P. U. R. 1927B, 711.

²⁶⁹ *Supra*, p. 66.

stockholders at a meeting duly called for that purpose. It may be assumed that the self-interest of the stockholders will suffice to force the management to secure the borrowed funds upon the best terms available under the prevailing market conditions. The law applicable to gas and electric companies requiring a company issuing bonds to "invite proposals for the purchase thereof by advertisements"²⁷⁰ assures that the stockholders of such companies will be informed as to the price that can be secured in the money market. It would seem advisable to extend this requirement to cover other classes of public service companies.

To close this discussion of the regulation of security without indicating the advantages that have flowed from this policy would give a distorted and false impression of the whole policy. The control of capitalization has become indispensable to the regulation of public utilities in Massachusetts. There is virtually no overcapitalization of utilities in the state.²⁷¹ But what is more important, the Massachusetts authorities know exactly what have been the investments in the various utilities. In this respect Massachusetts occupies a unique position, being far in advance of the other states. Massachusetts has had an excellent chance to adopt any theory of rate regulation it desired. The question of the influence of this control over capitalization upon the regulation of rates will be considered in Chapter IV.

²⁷⁰ *Supra*, p. 71.

²⁷¹ See L. R. Nash, *Economics of Public Utilities*, p. 211.

CHAPTER III

STATUTORY CONTROL OVER RATES

Introduction

THIS chapter is similar in scope to the last. The preceding chapter was devoted to a historical consideration of the development of statutory and administrative limitations on the issue of securities by public utilities. The purpose of this chapter is to give a historical sketch of the development of the statutes conferring upon the Massachusetts commissions the power to regulate the rates and charges of public service corporations. With this foundation, it will then be possible in the succeeding chapter to discuss the application and enforcement of these policies in the regulation of the rates and charges of the utilities.

In presenting this brief historical sketch, attention will be directed to four periods in the development of the rate regulating power. In the period prior to the establishment of the Board of Railroad Commissioners, no attempt was made by the state to exercise any control over the rates charged by the public service companies. In 1869 when that board was created, public sentiment was not convinced of the necessity for rigid control over rates with the result that the commission created was of the "weak" variety whose powers in the matter of rates and charges were limited to conducting investigations and making recommendations. The circumstances surrounding the creation of the Board of Gas Commissioners in 1885 were such that this board was given somewhat broader powers in regulation of the rates of gas, and later of electric light, companies. Finally in 1913 the Public Service Commission was created with full control over the regulation of rates and charges. Following this consideration of the development of the rate making power, the chapter will conclude with a summary analysis of the present powers of the Department of Public Utilities in the matter of rate regulation.

General Considerations

The right of the state to regulate the rates of public service companies is inherent in the sovereign power. This regulation is one of the legislative functions of the state.¹ The source of this power is not to be found in any specific provision of the constitution (although it may be expressly mentioned in some of the state constitutions); but it may be said to come under the police power of the state,—the power of the state to legislate in the interests of the common welfare. The power to regulate rates may be exercised directly by the legislature or by some commission created by an act of the legislature; or the legislature may delegate this power to the political subdivisions—as granting cities the power to regulate the local utilities operating within their confines.² The requirement that the prescribed rates must not be so low as to be confiscatory is the only limitation on the exercise of this power by the state.

The question of whether or not the rates so fixed are confiscatory is a question for judicial determination. It is within the power and duty of the courts to enforce all valid orders of the legislature or its instrumentalities concerning the reasonable prices to be charged by public service companies; but it is no part of the courts' functions to fix the rates to be charged. The courts can only decide whether the process followed by the legislature or its agents in fixing the rates was in accordance with the due process of law and whether the rates so fixed are confiscatory.³

Where the power to regulate rates is delegated to a commission, it is with the expectation, an expectation that is sometimes explicitly stated in the act creating the regulatory board, that the commission will establish only just and reasonable rates. The com-

¹ "Nevertheless the function of rate making is purely legislative in its character, and this is true whether it is exercised directly by the legislature itself or by some subordinate or administrative body, to whom the power of fixing rates in detail has been delegated." *Knorrville v. Knorrville Water Co.*, 212 U. S. 1, 8 (1909).

² H. C. Spurr, *Guiding Principles of Public Service Regulation*, I, 66.

³ "Rate making is no function of the courts and should not be attempted either directly or indirectly." *Newton v. Consolidated Gas Co.*, 258 U. S. 166, 177 (1922).

missions, however, frequently set rates which are just high enough to escape the constitutional prohibition against confiscation of private property without due process of law.⁴ In considering an appeal by a utility from a commission's order, the courts always proceed upon the supposition that the commission acted in good faith, "unless the evidence compels the conviction that a fair-minded board could not have reached the conclusion that the rate would prove adequate."⁵ Thus a rate order of a commission will be set aside only if it can be shown that confiscation of the utility's property will be the result.

Development of Commission Regulation of Rates

Prior to the establishment of the Board of Railroad Commissioners and for some time thereafter, there was no real attempt on the part of the state to exercise any control over the rates charged by the public utilities of the state. Since the railroads were the first undertakings to be recognized as "affected with a public interest," most of the legislation of this early period was directed toward them. In 1836, one of the earliest statutes on the subject provided that the rates of fare on railroads should be established by the directors of the road. These fares were subject to alteration by the legislature—the "alteration" of course meaning a reduc-

⁴ "The efforts of courts to control commissions' findings of value have failed. The reason lies in the character of the rule declared in *Smyth v. Ames*. The rule there stated was to be applied solely as a means of determining whether rates already prescribed by the legislature were confiscatory. It was to be applied judicially after the rate had been made; and by a court which had had no part in making the rate. When applied under such circumstances the rule, although cumbersome, may occasionally be effective in destroying an obstruction to justice, as the action of a court is, when it sets aside the verdict of a jury. But the commissions undertook to make the rule their standard for constructive action. They used it as a guide for making, or approving, rates. And the tendency developed to fix as reasonable, the rate which is not so low as to be confiscatory. Thus the rule which assumes that rates of utilities will ordinarily be higher than the minimum required by the Constitution has, by the practice of the commissions, eliminated the margin between a reasonable rate and a merely compensatory rate; and, in the process of rate making, effective judicial review is very often rendered impossible." Separate opinion of Justice Brandeis in *S. W. Tel. Co. v. Pub. Serv. Comm.* (Mo.), 262 U. S. 276, 296 (1922).

⁵ 262 U. S. 276, 296, footnote 8.

tion; but without the consent of the corporation such fares might not be reduced so low as to leave the corporation, an annual profit of less than ten per cent.⁶ No mention was made as to the basis upon which the ten per cent was to be calculated, but presumably the intention of the law was that it should be calculated on the amount of capital actually paid in.

The absence of control over rates did not leave the state wholly at the mercy of the railroads. Since 1831 the Massachusetts legislature has reserved the right to amend, alter, or repeal the charters of any company incorporated under its laws.⁷ There was also inserted in the Revised Laws of 1836 a provision to the effect that the state might purchase any railroad after a term of twenty years from its opening for use, upon the payment of an amount equal to the paid-in capital, plus a sum sufficient to make up any deficiency in the earnings below ten per cent, from the time the capital was paid in to the date of purchase.⁸

Provisions similar to those previously applied to railroads, with a few significant changes, were enacted in 1864 to govern the regulation of the rates to be charged by the street railways. In the first instance, the rates of fare were to be fixed by the directors subject to any limitations imposed in the company's charter.⁹ In the matter of the revision of street railway fares, however, a com-

⁶ "Every such corporation [railroad] may establish, for their sole benefit, a toll upon all passengers and property, conveyed or transported on their railroad, at such rates as may be determined by the directors of the corporation; and may, from time to time, regulate such conveyance and transportation, the weight of loads, and all other things in relation to the use of such road, as the directors shall determine; provided, that the legislature may, from time to time, as they shall deem expedient, alter or reduce such rates of toll, according to the provisions if any, contained in the charters of such corporations, but the said tolls shall not, without the consent of the corporation, be so reduced as to produce, with said profits, less than ten per cent per annum." Revised Statutes of 1836, c. 39, § 83.

⁷ "That all acts of incorporation, which shall be passed after the passage of this act, shall at all times hereafter be liable to be amended, altered, or repealed at the pleasure of the legislature, and in the same manner as if an express provision to that effect were therein contained; unless there shall have been inserted, in such act of incorporation, an express limitation as to the duration of the same." Mass. Acts of 1831, c. 81.

⁸ Mass. Revised Acts of 1836, c. 39, § 84.

⁹ Mass. Acts of 1864, c. 229, § 26.

paratively elaborate machinery was established. Upon the application of the board of aldermen of a city or the selectmen of a town or fifty legal voters of the community, the Supreme Judicial Court was instructed to appoint three commissioners whose duty it was to conduct hearings and make any necessary revision in the fares fixed by the corporation,—the report of the commissioners, confirmed by the court, to be final for one year.¹⁰ As with the railroads, the rates might not, without the consent of the railway, be so reduced as to cause the income of the street railway to fall below ten per cent, calculated “upon the actual cost of the construction of its road and the purchase of its property” as determined by the commissioners.¹¹

It was the expectation that, by granting them freedom from rate regulation so long as their profits were less than ten per cent upon the capital invested, the railroads and railways of the state would be stimulated to develop and expand their facilities. The most complete development of the transportation system called for large investments; and it was hoped that, by holding out this possibility of a ten per cent return, capital would be induced to seek investment in Massachusetts utilities. In some respects, this provision of the law failed to have the desired effect. It developed that rather than risk legislative interference in the regulation of rates, some railroads were content to carry only such limited amounts of traffic as would yield a ten per cent return. This policy resulted in the maintenance of high rates—which was possible so long as dividends did not exceed ten per cent—and the discouragement of all except the high grade traffic which could afford to pay the rates charged.¹² This unprogressive policy constituted a severe

¹⁰ *Ibid.*

¹¹ *Ibid.*

¹² “The guaranty of 10 per cent profits coupled with immunity from rate interference so long as the railroads limited themselves to not more than this return seems to have coöperated with other causes to produce an unprogressive management of some lines. The railroad managers in Massachusetts as early as 1854 were alert to the danger of legislative interference, and in order to avoid any such possibility were content to maintain a uniform and limited amount of traffic which netted only the legal maximum return. But a small amount of traffic tended to require a high rate per unit; and the demands of an expanding business played havoc with a stationary railroad policy. Complaints multiplied, but produced so little effect that merchants shipped their goods by

obstacle to the development of industry and trade, which depended upon cheap transportation facilities to secure the requisite raw materials; and ultimately led to the repeal, in 1870, of the provision which prevented any reduction in rates which would reduce the railroad's earnings below the amount necessary to yield ten per cent upon the capital paid in.¹³

When in 1869 the Board of Railroad Commissioners was established, it was given only very limited powers to regulate the rates of railroads. The commissioners were authorized to recommend to the railroads any change in the rates of fare charged by the roads for the transportation of freight or passengers;¹⁴ but there was no compulsion upon the railroad to follow such recommendation. If the railroad refused to adopt the commission's recommendation, the board could introduce a bill into the legislature embodying its recommendation. Even if the legislature was disposed to follow the commission's advice in the matter, it could not, until after 1870, compel a railroad earning less than a ten per cent dividend to

devious routes rather than endure the delays and high rates experienced on certain of the main arteries of communication." L. D. White, "The Origin of Utility Commissions in Massachusetts," *Jour. Pol. Econ.*, XXII (March 1921), 177, 186.

¹³ The provisions of Chap. 39, Sec. 83 of the Revised Statutes of 1836 were repeated in the General Statutes of 1860 (c. 63, § 112). There appears to be a difference of opinion as to when this provision prohibiting any compulsory reduction of rates so long as earnings were less than ten per cent was repealed. *The Report of the Commission on Commerce and Industry* (1908) mentioned 1874 as the date of the repeal (see p. 59). Professor Bullock in his article on Control of Capitalization of Public Service Corporations in Massachusetts stated that it was repealed by Chap. 372, Sec. 179 of the general railroad act of 1874 (*Publications of Am. Econ. Assn.*, X (1909), 384, 399, footnote 31). But the provisions of Acts of 1874, c. 372, § 179 were copied verbatim from Acts of 1870, c. 325, § 1 which read: "Any railroad corporation may establish for its sole benefit, fares, tolls and charges, upon all passengers and property, conveyed or transported on its railroad, at such rates as may be determined by the directors thereof, and may from time to time by its directors regulate the use of its road: provided, that such rates of fares, tolls and charges, and regulations, shall at all times be subject to revision and alteration by the legislature, or such officers and persons as the legislature may appoint for the purpose, anything in the charter of any such railroad corporation to the contrary notwithstanding."

¹⁴ Mass. Acts of 1869, c. 408, § 3.

reduce its rates.¹⁵ In its report for 1869, the board pointed out that this clause meant the virtual exemption of all the railroads of the state,¹⁶ and that expediency demanded the repeal of this measure. The attitude of the commissioners was doubtless instrumental in bringing about the repeal of this measure in 1870,¹⁷ and after that date, there was no limitation on the power of the legislature to reduce rates, except the constitutional limitation that the rates must not be so low as to prevent the utility from earning a reasonable return upon the fair value of its property.

In 1871, the Board of Railroad Commissioners was given the power to revise and regulate the fares fixed by street railways.¹⁸ It was provided that such questions should come before the board upon the application of the board of aldermen, the selectmen, or fifty voters of a community in which the street railway operated; and upon receiving such application, it was the duty of the board to conduct an investigation and hold hearings. Illogically enough, the restriction upon the power of the legislature to reduce the rates of street railways was retained: the board might not, without the consent of the railway corporation, reduce the rates so as to deprive the company of an income of less than ten per cent upon its actual investment in road and equipment.¹⁹ This law of 1871 contained a further unique feature: it was provided that the expenses of the application and hearing should be "borne by such party as the said board may determine."²⁰

From this brief statement of the laws governing the regulation of rates, it is evident that the Board of Railroad Commissioners had little or no positive authority of itself to fix the rates charged by the companies under its jurisdiction. In its annual reports, the commission announced on several occasions that it was without the

¹⁵ Mass. Revised Acts of 1836, c. 39, § 83; General Statutes of 1860, c. 63, § 112.

¹⁶ "The existence of this law is a practical barrier against the enactment of the measure proposed by the Commissioners, inasmuch as many railroads of this Commonwealth earn less, and none divide more than the stipulated ten per cent." 1st Ann. Rep. Mass. R. C. 62 (1869).

¹⁷ Mass. Acts of 1870, c. 325, § 1; 1874, c. 372, § 179; P.S., c. 112, § 180; 1906, c. 463, Pt. II, § 181.

¹⁸ Mass. Acts of 1871, c. 381, § 34; P.S., c. 113, § 44.

¹⁹ *Ibid.*

²⁰ *Ibid.*

power to fix passenger fares²¹ or freight rates.²² In only two instances, did the general court give the railroad commissioners direct power to alter or fix rates.²³ To prevent discrimination against the small milk dealers, the board was granted the authority to fix rates for the carriage of milk by the can which would be fairly comparable to those fixed by the railroad companies for the carriage of milk in large quantities.²⁴ Because the Housatonic Railroad refused to comply with the recommendation of the commission that its freight rates be reduced, the legislature, by a special act,²⁵ gave the board power to fix freight rates on this road. Since the board's order under this act affected the rates on interstate shipments, both the order and the statute were declared invalid by the Supreme Judicial Court of Massachusetts.²⁶

Even in making recommendations to the railroads that they reduce their rates, the Board of Railroad Commissioners placed a very restricted interpretation upon their powers. It proceeded upon the assumption that the utility was bound to furnish service at reasonable rates.²⁷ The commission refused to recommend that

²¹ *Medford v. Boston & Lowell Railroad Co.*, 15th Ann. Rep. Mass. R. C. 149 (1883).

²² See the following cases in 16th Ann. Rep. Mass. R. C. (1884): at page 128, *Dalton v. Boston & Lowell Railroad*; at page 134, *Brookline v. Boston & Albany Railroad*; at page 139, *Winthrop v. Boston, Revere Beach and Lynn Railroad*.

²³ 24th Ann. Rep. Mass. R. C. 14 (1892).

²⁴ Mass. P.S., c. 112, §§ 192-194.

²⁵ Mass. Acts of 1885, c. 338.

²⁶ *Commonwealth v. Housatonic Railroad Company*, 143 Mass. 264 (1887). For the rates fixed by the commission, see 17th Ann. Rep. Mass. R. C. 148-149 (1885).

²⁷ "The conferring upon the railroad corporations the power of carrying freight and passengers has imposed upon them, to some extent, the correlative duty of carrying them at reasonable times and for a reasonable compensation subject to the revision of the Legislature. . . . The construction of a railroad is not a private enterprise. The corporation exercises the right, or the Legislature through the corporation exercises the right, to take private property for the road, on the ground that the use is a public use and the road itself a highway for public travel. On no other ground could the exercise of the right of eminent domain by or through these corporations be upheld." *Commonwealth v. Fitchburg Railroad*, 12 Gray 180, 188 (1858).

See also 12th Ann. Rep. Mass. R. C. 31 (1880); *Brookline v. Boston & Albany Railroad*, 16th Ann. Rep. Mass. R. C. 134 (1884); *Hankey v. Boston & Albany Railroad*, 17th Ann. Rep. Mass. R. C. 119 (1885).

a railroad reduce its rates unless the situation was such that it was willing, in event the railroad failed to comply, to follow up the recommendation with the introduction of a special bill into the legislature.²⁸ The board held that before it would enter a formal recommendation that rates be reduced it had to be shown not merely that the rates in question were higher than good policy on the part of the company would require, that they were higher than rates approved by the board or that it would be wise policy to reduce rates, but that the rates in question were definitely unreasonable.²⁹ It had to appear that the rates were excessive and markedly out of proportion to the services rendered.³⁰ In one case, the commission said that rates might be proved unreasonable if one of the following could be shown: that the rate was excessive as compared with that charged by other companies; that the rate was excessive as compared with the rates on other commodities carried by the same road; that exceptional conditions existed which made an unusually low rate profitable.³¹ The commission refused to give any definite criteria of what constituted reasonable, and what unreasonable, rates, but wisely held that the question of reasonableness depended upon the circumstances of each case.³²

The Board of Railroad Commissioners, particularly during the early period, expressed complete satisfaction with its power to investigate and recommend changes in rates, and indeed went so far as to state that it thought it would be unwise for it to have the

²⁸ Cf. the following cases for statements of the commission's attitude: *Pittsfield v. Boston & Albany Railroad*, 14th Ann. Rep. Mass. R. C. 131, 134 (1882); *Dalton v. Boston & Lowell Railroad*, 16th Ann. Rep. Mass. R. C. 128, 129 (1884); *Worthy Paper Co. v. Boston & Albany Railroad*, 17th Ann. Rep. Mass. R. C. 126, 127 (1885); *Bel Air Manufacturing Co. v. Boston & Albany Railroad Company*, 18th Ann. Rep. Mass. R. C. 79, 81-82 (1886).

²⁹ *Coal Rates in Berkshire County*, 8th Ann. Rep. Mass. R. C. 63, 70 (1876).

³⁰ *Ibid.*

³¹ *Freetown v. New Bedford & Taunton Railroad*, 2d Ann. Rep. Mass. R. C. cxv, cxvi (1870).

³² *Whitney v. Milford & Woonsocket Railroad*, 18th Ann. Rep. Mass. R. C. 85, 86 (1886). In this case the commission refused to reduce unusually high passenger rates because the light density of traffic caused operation at a loss. For an extended discussion of what constituted reasonable rates see *Dalton v. Boston & Lowell Railroad*, 16th Ann. Rep. Mass. R. C. 128 *et seq.* (1884).

power to fix rates directly.³³ The Board found that the use of publicity in connection with its investigation gave it quite effective means of persuading the railroads to conform to its suggestions. So conservative and restrained were its recommendations that an appeal to the legislature was seldom necessary.³⁴ The activity of the board was successful in securing substantial reductions in rates.³⁵

As indicated above, the actual control of the Board of Railroad Commissioners over the fares of street railway companies was very limited. It could order no reductions in rates that would cause the profits of the company to be reduced below ten per cent on the actual cost of construction.³⁶ In the judgment of the Special Committee on Street Railways, which reported in 1898, this law tended to defeat its own ends.³⁷ As indicated in their report, an unreasonable scale of fares might be the very cause which prevented an increase in traffic which would yield a ten per cent profit: and in such a situation, the board was without power to act.³⁸ On the recommendation of this special committee, the law was revised so that in place of the "ten per cent" limitation on the power of the commission to reduce street railway fares, it was provided that the

³³ "The power of fixing rates, either for freight or passengers, has wisely been withheld from the commission of this State. The theory has been that the railroad companies shall be allowed to manage their own affairs subject to State supervision through the Board, and in case of need by the General Court. No formal recommendation under the statute should be given except upon a case which is to be followed by an appeal for legislation if the advice is not heeded." *Brookline v. Boston & Albany Railroad*, 16th Ann. Rep. Mass. R. C. 134 (1884).

³⁴ "The legislature has, however, placed in the hands of the Board a more persuasive and effective appliance for the regulation of rates than legal compulsion—that of investigation, criticism and publicity. . . . The formal recommendation of the Board, after notice and public hearing, for an alteration or reduction of rates, has very rarely been disregarded; . . ." 24th Ann. Rep. Mass. R. C. 14-15 (1892).

See also *supra*, pp. 13 *et seq.*

³⁵ "The average passenger fare per mile in this State twenty years ago, in 1872, was 2.43 cents. It is now 1.83 cents. The average freight rate in 1872 was 2.81 cents, and is now 1.36 cents." 24th Ann. Rep. Mass. R. C. 13 (1892).

³⁶ *Supra*, pp. 32, 91.

³⁷ *Report of Special Committee on Street Railway Companies*, Mass. House Document 475 of 1898, 53.

³⁸ *Ibid.*

fares should not, without the consent of the company, be reduced below the average fare charged for similar service by other street railways, which, in the judgment of the board, were operating under similar conditions.³⁹ It has been suggested that this amendment was based upon assumption "that the interests of the public and of the street railway companies are ordinarily identical, that therefore the average rate will be approximately the just rate, and that governmental interference is necessary only in certain exceptional cases."⁴⁰

The change in the law in 1898 proved no more satisfactory than the former requirements. The Board of Railroad Commissioners summarized its objections to this measure in the following words:

The difficulty of establishing in any given case just what is a similar service has seriously embarrassed parties who have sought a regulation of fares under this section. The theory that rates should depend upon what the companies themselves establish and practice, either with or without agreement, is clearly untenable. If the authority to recommend changes which the Board has under its general power of supervision over railways needs to be strengthened in relation to fares, the additional authority should be given without restriction other than the requirement that action be based upon what is reasonable under all the circumstances."⁴¹

This recommendation of the board was followed when, in 1901, Chapter 578, Section 23 of the Acts of 1898 was repealed, and the street railways, as regards the regulation of their rates, were made subject to the provisions governing railroads.⁴²

³⁹ "The board of aldermen of a city, or the selectmen of a town, or fifty legal voters of a city or town in which a street railway is located, or a street railway company in any case when its fares have been revised under this section, may apply to the board of railroad commissioners, who, after due notice to the parties interested and a hearing, may revise and regulate the fares established by said company or by said board; but such fares shall not, without the consent of the company, be reduced below the average rate of fare charged for similar service by other street railway companies which, in the judgment of the board of railroad commissioners, are operating under substantially similar conditions." Mass. Acts of 1898, c. 578, § 23.

⁴⁰ R. H. Whitten, *Public Administration in Massachusetts*, p. 126.

⁴¹ 32d Ann. Rep. Mass. R. C. 93 (1900).

⁴² Mass. Acts of 1901, c. 180, § 1; R. L., c. 112, § 73; 1908, c. 463, Pt. III, § 100. For the provisions governing railroads see *supra*, pp. 91 *et seq.*

The presence of acute competition in some of the leading cities of the state at the time of the establishment of the Board of Gas Commissioners was responsible for the willingness of the companies to consent to giving the board broad powers to exclude competing companies and, as a counterbalance, to regulate prices and quality first of gas, and later of electricity.⁴³ Upon the receipt of written complaint, the board was required to make an investigation and conduct a hearing, after which they might order any proper reduction in price or improvement in the service rendered.⁴⁴ In 1887, the commission was given similar control over electric light companies,⁴⁵ and finally over water companies.⁴⁶ The power of the Board of Gas and Electric Light Commissioners remained practically unchanged in this respect down to 1919 when it was joined with the Public Service Commission to form the newly organized Department of Public Utilities.⁴⁷ The commission's "orders" under this statute were always put in the form of "recommendations" to the companies. Unlike the Board of Railroad Commissioners, the gas commissioners were less hesitant about recommending reductions in price; in some cases even recommending reductions in anticipation of lower operating costs from the installation of new works.⁴⁸

The conditions responsible for the abolition of the Board of Railroad Commissioners in 1913, and the substitution, in its stead, of the Public Service Commission have already been presented in

⁴³ *Supra*, pp. 15 *et seq.*

⁴⁴ "Upon the complaint in writing of the mayor of a city or the selectmen of a town in which a gas company is located, or of 20 customers of such company, either of the quality or price of the gas sold and delivered by such company, the board shall notify the company of such complaint by leaving at their office a copy thereof, and shall thereupon after notice give a public hearing to such petitioner and such company, and after said hearing may order if they deem just and proper any reduction in the price of gas or improvement in the quality thereof, and they shall pass such orders and take such action as are necessary thereto, and a report of the proceedings and the result thereof shall be included in their annual report to the legislature." Mass. Acts of 1885, c. 314, § 9.

⁴⁵ Mass. Acts of 1887, c. 382.

⁴⁶ *Ibid.*, 1914, c. 787.

⁴⁷ Cf. *Ibid.*, 1888, c. 350; 1914, c. 742, § 162.

⁴⁸ *Charlestown Petition*, 21st Ann. Rep. Mass. G. & E. L. C. 17-18 (1905).

another place.⁴⁹ It suffices here to emphasize that one of the chief causes of the failure of the later Board of Railroad Commissioners was their legal inability to issue mandatory orders to support their findings in rate investigations. With the establishment of the Public Service Commission, all this was changed for the new board was given full and complete power to regulate the rates of all utilities under its jurisdiction.⁵⁰ In the first place, the law stated that all charges for service should be just and reasonable, and all unjust and unreasonable charges were prohibited and declared unlawful.⁵¹ As prescribed by the Interstate Commerce Act, all common carriers were required to file schedules of their rates and tariffs, and all departures from such published schedules were forbidden.⁵² It was provided that the rates should be determined in the first instance by the common carriers, "subject to the power of the commission to regulate and prescribe rates and charges."⁵³ The power of the commission in this respect was full and plenary for the law provided that

the commission shall not be prevented from taking such action as it may deem proper by any commitment or agreement of a common carrier entered into by reason of any requirement or recommendation of any board or public officers acting under delegated authority from the general court prior to the enactment hereof.⁵⁴

Unless the commission waived the requirement, no change in rates or in any rule or regulation was permitted until after thirty days' notice.⁵⁵

Either upon complaint or upon its own initiative, the commission was empowered to hold public hearings and conduct investigations into any proposed changes in rates, and, pending the completion of the investigation, to suspend a proposed change.⁵⁶ The decision

⁴⁹ *Supra*, pp. 16 *et seq.*

⁵⁰ The Public Service Commission was given jurisdiction over all common carriers including railroads, street railways, steamship lines, express and car service companies, and telephone and telegraph companies. *Supra* p. 17.

⁵¹ Mass. Acts of 1913, c. 784, § 17.

⁵² *Ibid.*, § 20.

⁵³ *Ibid.*, § 19.

⁵⁴ *Ibid.*

⁵⁵ *Ibid.*, § 20.

⁵⁶ *Ibid.*, § 21. This section was so important as to merit quotation *in toto*:

"Whenever the commission receives notice of any change or changes proposed

and order of the commission, after such hearing and investigation, was mandatory upon the common carrier.⁵⁷ The object of the law under discussion was to assure that the rates should be reasonable and compensatory, no more, no less. For the protection of the consuming public, it was provided that the commission should have control over the maximum rates to be charged, and the burden of proof was upon the carrier to sustain the necessity for any advance in rates.⁵⁸ To protect the best interests of the public and the company, the commission was given power to establish the minimum rates below which the utility might not go.⁵⁹ All of the powers and duties conferred upon the Public Service Commission by this section were entirely new to the Massachusetts regulatory policy.

The Public Service Commission, moreover, did not have to await a proposed change in rates or the receipt of a complaint regarding the established rates in order to act; it had ample power, upon its own motion, to investigate existing rates, rules, or regulations.⁶⁰ If it found that any such rates or regulations were "unjust, unrea-

to be made in any schedule filed under the provisions of this act, it shall have power, either upon complaint or upon its own motion, and after notice, to hold a public hearing and make investigation as to the propriety of such proposed change or changes. Pending any such investigation and the decision thereon, the commission shall have power, by any order served upon the common carrier affected, to suspend the taking effect of such change or changes, but not for a longer period than six months beyond the time when such change or changes would otherwise take effect. After such hearing and investigation, the commission may make such order in reference to any new rate, joint rate, fare, telephone rental, toll, classification, charge, rule, regulation or form of contract or agreement proposed, as would be proper in a proceeding initiated after the same has taken effect. At any such hearing involving any proposed increase in any rate . . . the burden of proof to show that such increase is necessary in order to obtain a reasonable compensation for the service rendered shall be upon the common carrier. If at any hearing involving a proposed decrease in any rate, . . . it shall appear to the commission that the said rate or rates, . . . is insufficient to yield reasonable compensation for the service rendered, the commission shall have power to determine what will be the just and reasonable rate or rates, . . . to be thereafter observed in such case as the minimum to be charged, and to make an order that the common carrier complained of shall not thereafter demand, charge or collect any rate, . . . lower than the minimum so prescribed without first obtaining the consent of the commission, not to be given without a public hearing."

⁵⁷ Mass. Acts of 1913, c. 784, § 21.

⁵⁸ *Ibid.*

⁵⁹ *Ibid.*

⁶⁰ *Ibid.*, § 22.

sonable, unjustly discriminatory or unduly preferential or in any wise in violation of any provision of the law, or that the rates, fares and charges" were "insufficient to yield reasonable compensation for the service rendered," the commission might fix the reasonable rates, charges or regulations to be thereafter observed by the utility.⁶¹ The order of the commission was mandatory upon the carrier which was required to do everything necessary to secure the absolute compliance with, and observation of, its provisions by all of its officers and employees.⁶² In special cases where it was in the public interest, the commission was empowered to authorize a common carrier to charge less for the transportation of passengers or commodities for a longer distance than for shorter distances.⁶³

This act (St. 1913, c. 784) marked a radical change in regulatory policy of Massachusetts; it marked the transition from the "weak" type of commission whose powers were limited to investigatory and recommendatory functions, to the "strong" commission with mandatory powers in the regulation of rates and services.⁶⁴ The Public Service Commission was given power in the matter of rate regulation comparable to that conferred upon the Interstate Commerce Commission in 1920. The commission was given authority to determine and fix just and reasonable rates either by raising or lowering the existing rates. The commission was charged with the double duty of protecting the consumers from "unjust and unreasonable" rates and of securing to the utility "just and reasonable" charges. The interest of the public in the success of its utilities was thus clearly recognized.

Present Powers of the Massachusetts Commission

The present powers of the Department of Public Utilities in the regulation of rates and charges of the public utilities under its

⁶¹ *Ibid.*

⁶² *Ibid.*

⁶³ *Ibid.*

⁶⁴ *Arlington Board of Survey v. Bay State Street Railway*, 224 Mass. 463, 469 (1916); *Donham v. Public Service Commissioners*, 232 Mass. 309, 313 (1919); *Middlesex & Boston Rate Case*, 2d Ann. Rep. Mass. P. S. C. 99, 103-105 (1914).

jurisdiction are substantially the same as those exercised by the Public Service Commission and the Board of Gas and Electric Light Commissioners at the time of their abolition. All of the powers and duties of the earlier commissions were transferred to the newly organized department.⁶⁵ Due to the fact that the Public Service Commission possessed more extensive control over the common carriers than that exercised by the Board of Gas and Electric Light Commissioners over the utilities subject to their jurisdiction, the Department of Public Utilities, at the time of its organization, did not have the same degree of control over all the utilities under its regulation.

The public service companies are required specifically to charge only "just and reasonable" rates, all others being declared unlawful.⁶⁶ In general the initiative in the matter of the determination of rates, charges, and regulations rests with the company, subject in every instance to the approval of the commission.⁶⁷ The common carriers are required to file and post printed schedules of the rates approved by the department, and such rates are made the only ones lawfully collectible.⁶⁸

Either upon complaint or upon its own motion, the department

⁶⁵ Mass. Acts of 1919, c. 350, §§ 117, 120; quoted *supra* p. 18, nn. 79 and 80. For the utilities included under the designation "common carriers," see Mass. G. L., c. 159, § 12.

⁶⁶ Mass. G. L., c. 159, § 17.

⁶⁷ *Ibid.*, § 18; c. 160, § 186; c. 161, § 109; c. 164, § 94.

The attitude of the regulatory authorities relative to the propriety of the company exercising the initiative in rate making was well expressed by the former Public Service Commission:

"The initiative with respect to the plan which should be adopted rests under the law with the company. The company is in the most favorable position to obtain an accurate and intimate knowledge of traffic conditions, and the co-operation of the public is so essential to its successful operation, that it is bound by self-interest, not only to make provision for its revenue requirements, but to accomplish that result through such a rearrangement of existing fares as will, in its judgment, be least likely to provoke serious protest from its patrons. For that reason, proper weight should be given to the judgment of the operating officials of the Company, and the Commission would not be warranted in disallowing the plan which they have proposed unless it can be shown that some alternative plan will yield the needed increase in revenue with less burden to the riding public." *Holyoke Ry. Co.*, 7th Ann. Rep. Mass. P. S. C. 13, 16, P. U. R. 1920C, 768-769 (1919).

⁶⁸ Mass. G. L., c. 159, § 19.

can enter upon an investigation of existing or proposed rates and hold public hearings, relative to the rates or prices charged or the quality of the service rendered.⁶⁹ Pending a decision on such questions, the department may suspend, for a period of ten months, rate changes proposed by common carriers.⁷⁰ The commission does not possess the power to suspend rate changes proposed by gas and electric light companies. However, where the rates of such gas and electric light companies have been fixed by contract between the company and the community served, or by a previous order by the commission, there can be no increase in rates except by a subsequent order of the commission, after investigation and public hearings.⁷¹ Thus as far as the majority of gas and electric light companies are concerned, the department has as effective control over rates as though it had the direct power to suspend proposed changes. Except where waived by the department, a thirty days' advance notice is required of common carriers before they may change their rates; and when an advance is sought, the burden of justifying the increase is placed upon the companies.⁷² The commission is empowered, after investigation and public hearings, to fix the maximum rates and charges that may be demanded and received by the utilities;⁷³ and, in the case of common carriers, it may establish the minimum below which the company's rates may not fall.⁷⁴ Also the commission may order any improvement in the quality of the service supplied by gas or electric light companies.⁷⁵ Where common carriers have not done so, the department may require the establishment of satisfactory through routes and joint rates for the transportation of passengers and commodities.⁷⁶ The orders of the commission based upon its findings are mandatory upon all parties; and for gas and electric light companies, are binding until changed by a subsequent order.⁷⁷

The department does not have the power to order retroactive

⁶⁹ Mass. G. L., c. 159, § 20; c. 164, § 93. It is only since 1927, that the department has had power upon its own motion to conduct hearings for the purpose of determining whether the rates charged by gas and electric companies are fair and reasonable (Mass. Acts of 1927, c. 316).

⁷⁰ Mass. G. L., c. 159, § 20.

⁷¹ *Ibid.*, c. 164, § 94.

⁷² *Ibid.*, c. 159, § 19.

⁷³ *Ibid.*, § 20; c. 164, § 93.

⁷⁴ *Ibid.*, c. 159, § 20.

⁷⁵ *Ibid.*, c. 164, § 93.

⁷⁶ *Ibid.*, c. 159, § 21.

⁷⁷ *Ibid.*, c. 164, § 94.

rates.⁷⁸ The present commission, as well as the former commissions, possesses the power to set aside rates fixed by franchise, charter or grant of location.⁷⁹ The department has, for the most part, shown a commendable restraint in refraining from imposing its judgment upon the company in the regulation of rates.⁸⁰

The only limitation upon the commission in the regulation of the rates and charges of public service companies is that the rates must not be set so low as to deprive the utility of the opportunity of earning a reasonable return upon its property. The factors to be considered in the determination as to what constitutes reasonable rates will be the subject of the following chapter.

⁷⁸ Cf. statement in *Re Rudderham*, P. U. R. 1927D, 174, 176.

⁷⁹ For the series of decisions establishing and affirming this power see the following cases: *New Bedford & Onset Street Railway*, 36th Ann. Rep. Mass. R. C. 11 (1904); *Middlesex & Boston Rate Case*, 2d Ann. Rep. Mass. P. S. C. 99, 105 (1914); *Bay State Street Railway Company*, 5th Ann. Rep. Mass. P. S. C. 28, *et seq.*, P. U. R. 1917C, 554, *et seq.* (1917); *Keefe v. Lexington & Boston Street Railway*, 185 Mass. 183, 185 (1904); *Clinton v. Worcester Street Railway*, 199 Mass. 279, 285 (1908); *Arlington Board of Survey v. Bay State Street Railway*, 224 Mass. 463, 469 (1916); *Fall River v. Public Service Commissioners*, 228 Mass. 575, 117 N. E. 915, P. U. R. 1918B, 141, 142 (1917).

⁸⁰ "As to the argument that the increased fares will result in a decrease in the receipts, we have only this to say, that where a company is not meeting its operating expenses, this Department ought not to substitute its judgment for that of the management of the corporation as to whether an increase in fares will increase the revenue, except in a clear case. . . . The management has the advantage of experience in operating the road and ordinarily its judgment as to the question will be superior to the judgment of this department." *Re Boston, Revere Beach, & Lynn Railroad*, P. U. R. 1920E, 734, 737 (1920).

"Moreover, a public board should hesitate to substitute its judgment as to whether a higher or lower fare will result in a greater revenue to a road which is being operated without any profit. The owners of the road have their capital at stake. Ordinarily they have no other interest than to make the road pay and the public has the advantage of their experience." *Re Worcester Consolidated Street Railway*, P. U. R. 1920C, 763, 766 (1920).

CHAPTER IV

ADMINISTRATIVE REGULATION OF RATES

Introduction

IT is the purpose of the present chapter to present an analysis of the administrative policies developed by the Massachusetts commissions in their regulation of the rates and charges of public service companies. This analysis will be confined chiefly to the period subsequent to 1913 when the Public Service Commission was created with extensive powers in the matter of rate regulation.¹

In the regulation of rates, Massachusetts commissions have developed a policy and method of procedure which is wholly unique, departing radically from the methods followed by other regulatory commissions. In striking contrast to the practice of other regulatory bodies, the Massachusetts boards have never made a valuation of the property of a utility to determine the basis upon which that utility should be permitted to earn a return. And under this regulation, the utilities have apparently prospered, for, until the Worcester Electric Light Rate case (decided June 3, 1927), no appeal from the orders of a Massachusetts commission regulating rates had been carried to a federal court.² This distinctive, and seemingly uncontested, method of regulation merits investigation.

The Reasonableness of Rates

The central purpose of all regulation is to assure adequate service at reasonable and non-discriminatory rates, and the most important and difficult of any commission's duties are concerned with the determination of what rates are reasonable. The power

¹ *Supra*, pp. 96 *et seq.*

² The only exception to this generalization is the *Interstate Consolidated Street Railway Company v. Massachusetts*, 207 U. S. 79 (1907). This case is only a nominal exception, since the point at issue was not the rates charged, but whether the railway was subject to a statute requiring the transportation of school children at one-half the regular fare.

delegated to the regulatory commission by the legislatures is the power to fix reasonable and non-discriminatory rates. If a commission fixes rates which yield less than a "reasonable" return, it exceeds its jurisdiction and its orders are subject to reversal by the court on that ground. But there is a theoretical and practical distinction between rates that are reasonable and those that are merely non-confiscatory. It is within the power of the legislature to fix any rate so long as the rate permits the utility to earn a fair return upon its property. In other words, the legislature is not constrained from setting a less than reasonable return. If, however, the rate established by the legislature yields less than a fair return upon the value of the utility's property, the act of the legislature may be set aside by a court of competent jurisdiction as unconstitutional and in violation of the Fourteenth Amendment to the Constitution which prohibits a state from depriving a person of property without due process of law.

The courts have been quite explicit in defining what is meant by confiscatory rates, and there is consequently little difference of opinion on this point. Thus in the *Bluefield* case, the Supreme Court stated:

Rates which are not sufficient to yield a reasonable return on the value of the property used at the time it is being used to render the service are unjust, unreasonable and confiscatory, and their enforcement deprives the public utility company of its property in violation of the Fourteenth Amendment. This is so well settled by numerous decisions of this court that citation of the cases is scarcely necessary. . . .³

It is somewhat more difficult to state positively what constitutes a reasonable return. The reasonableness of a rate must depend upon the present conditions and past history of the particular company under consideration. It varies, and must necessarily vary, for different utilities and for the same utility at different times. Ideally, the reasonable rate would be the one which justly divided the margin between the cost to the utility of rendering the service, and the value of the service to the consumer. "The value of the service to the consumer" is, however, such an elusive concept,

³ *Bluefield Co. v. Pub. Serv. Comm.* (W. Va.), 262 U. S. 679, 690 (1923).

varying as it does with each individual and for the same individual at different times, so impossible of even approximate definition, that it furnishes no guide for the actual determination of reasonable rates. Although frequently used by commissions and courts, the term is little more than a high-sounding phrase calculated to appease the public. There is, however, another conception of reasonable rates, which is rather more useful for practical purposes; namely, those rates are reasonable which yield a return, not only commensurate with the cost of the service rendered, but adequate to induce further investment when required in the public interest.

The Rate Committee of the National Association of Railway Commissioners is authority for the following statement as to what should be considered a reasonable return:

The amount of return should be such as to provide for the cost of economical and efficient management, taxes, depreciation, a fair net return on the value of the property devoted to the public use, and a proper margin for the successful conduct of the business. Exceptional efficiency of management should receive consideration and encouragement.⁴

It is the matter of the net return upon the value of the property devoted to the public service upon which most of the rate controversies turn. And in the case quoted above, the Supreme Court stated that

a public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties. . . .⁵

All of the statements of the Supreme Court have specifically stressed the close relationship between the fair and reasonable return and the value of the property used in serving the public.

It is quite noticeable, however, that the Massachusetts commissions, in defining their concept of reasonable rates, have not meas-

⁴ *Proceedings of the National Association of Railway Commissioners*, Vol. 29, pp. 448-449 (1917).

⁵ *Bluefield Co. v. Pub. Serv. Comm.* (W. Va.), 262 U. S. 679, 692 (1923).

ured their reasonableness by any reference to the value of the utility's property. When any mention is made of the reasonableness of rates, they are defined as those rates which will yield a return upon the investment sufficient to attract additional capital. The following are typical statements of what is considered reasonable in Massachusetts:

Broadly stated, rates should be so fixed as to yield to a railroad corporation economically and efficiently managed, revenues adequate to meet its operating expenses and fixed charges and to yield a fair return upon the capital honestly and prudently invested. Rates which are either too low or too high, judged by this standard, are unjust and unreasonable either to the company and its stockholders or to the traveling public.⁶

Broadly speaking, rates which will, under reasonably good management, yield a return upon honest and prudent investment sufficient to attract the additional capital needed are "just and reasonable rates" in Massachusetts.⁷

Apart from any question of law, we think it obvious that a public utility should be allowed rates which under reasonably prudent and economical management will yield a return upon the capital employed in the enterprise sufficient to make that capital an attractive investment.⁸

No fixed definition has been given as to the meaning of the term "investment" or of "honest and prudent investment." It refers not to the capital property of the company nor to the total amount of money invested in the property. It has been related simply to the money paid in directly by the security holders. Sometimes it has meant the aggregate par value of the outstanding securities; more recently, it has meant this aggregate par value of outstanding securities plus any premiums paid into the company's treasury by the stockholders. As thus understood, "reasonable rates" in Massachusetts may be markedly different from what would be considered

⁶ *Railroad Passenger Rate Case*, 3d Ann. Rep. Mass. P. S. C. 3, 4 (1915).

⁷ *Bay State Rate Case*, 4th Ann. Rep. Mass. P. S. C. 3, 12, P. U. R. 1916F, 221, 234 (1916).

⁸ *Federated Civic Clubs v. Springfield St. Ry. Co.*, P. U. R. 1925A, 127, 128 (1924).

"reasonable rates" as defined by other state and federal regulatory bodies.

The right of the owner to earn a return upon his property is one of the incidental rights of that ownership. The power of the state and federal governments to interfere with that right is restricted respectively by the Fourteenth and Fifth Amendments to the Constitution. Both federal and state regulatory bodies have recognized this right to earn a return as preventing them from imposing confiscatory rates upon public utilities under their jurisdiction. The federal, and most of the state, bodies have based their calculations as to the reasonableness of rates upon the present fair value of the property used in the public service.⁹ In Massachusetts, however, it has been only the capital actually paid into the corporate treasury which has been recognized as entitled to earn a fair compensation.¹⁰

In general, the Massachusetts regulatory commissions agree with the commissions of other states as to the factors which should be considered in determining the reasonableness of rates. The history of the particular company is studied, and it is recognized that the reasonableness of rates depends upon the circumstances of each particular case. Efficiency of management and service are mentioned as elements entitling a utility to a higher rate of return. All of the Massachusetts regulatory bodies have been quick to criticize improper intercorporate relations of companies under their jurisdiction, particularly where construction contracts have been given to companies in which the directors of the utility have an interest or when the operating companies are controlled by

⁹ This has been true of practically all the rate cases that have come before the federal courts. For typical statements of the Supreme Court on this point see *Smyth v. Ames*, 169 U. S. 466, 546 (1898); *Denver v. Denver Union Water Co.*, 246 U. S. 178, 190-191 (1918); *Newton v. Consolidated Gas Co.*, 258 U. S. 165 (1922); *S. W. Tel. Co. v. Pub. Serv. Comm.* (Mo.), 262 U. S. 276, 287 (1923); *Bluefield Co. v. Pub. Serv. Comm.* (W. Va.), 262 U. S. 679, 690, 692-693 (1923).

¹⁰ See, for example, 3d Ann. Rep. Mass. G. & E. L. C. 68-69 (1887); *Jamaica Plain Petition*, 12th Ann. Rep. Mass. G. & E. L. C. 11-12 (1896); *Warren, Brookfield & Spencer Street Railway*, 36th Ann. Rep. Mass. R. C. 19 (1904); *Federated Civic Clubs v. Springfield St. Ry. Co.*, P. U. R. 1925A, 127, 128 (1924).

holding companies.¹¹ In some instances, the Board of Gas and Electric Light Commissioners, in considering intercorporate relationships, seemingly interfered arbitrarily in managerial matters.¹² The general economic conditions, and the conditions under which the utility renders service and its property development have been among the matters considered. The fact that the Massachusetts utilities have been given a monopoly and protected from competition has been frequently mentioned as justification for designating as reasonable a low rate of return.¹³ Earnings and dividend payments have been given considerable weight in Massachusetts in determining the reasonableness of rates. Their laws governing the issue of additional securities have long provided that the securities must not be sold at less than par. This has made the commissions eager to have the utilities in a position to pay dividends, and has caused them to show considerable leniency toward companies that have paid dividends with rather scanty earnings.¹⁴ For similar reasons, the Massachusetts regulatory

¹¹ See *Leominster Petition*, 25th Ann. Rep. Mass. G. & E. L. C. 13 (1909); *Re Contracts*, P. U. R. 1917B, 397 (1916); *Re Hampden Railroad*, 1st Ann. Rep. Mass. P. S. C. 187, 210 (1913); *Blue Hill Rate Case*, 3d Ann. Rep. Mass. P. S. C. 52, 63, P. U. R. 1915E, 370, 384 (1915).

¹² "The control and ownership of this company is practically identical with that of the Boston Consolidated Gas Company and the New England Gas and Coke Company. . . . These relations, therefore, place it in the power of the East Boston Company, if its owners so desire, to purchase its gas at a much lower price than it can make it in its own works.

"It is probably true that the Gas and Coke Company is unable with its present facilities to supply East Boston and at the same time give the Consolidated Company all the gas it desires; but if the amount needed for East Boston should be sent there, instead of to the Consolidated, it would be a distinct advantage to the customers of the former and an inappreciable loss to those of the latter. The owners of these properties may prefer to continue the existing arrangements rather than to sell gas to the East Boston Company, and they have an undoubted legal right so to do. The public interest, however, should not be prejudiced by such a choice.

"The price at which the company might provide itself with gas, by purchase or otherwise, must be the basis for determining the price at which it ought to sell." *East Boston Petition*, 22d Ann. Rep. Mass. G. & E. L. C. 17, 18 (1906). See also *Blackstone Petition*, 23d Ann. Rep. Mass. G. & E. L. C. 39, 41-43 (1907).

¹³ *Customers v. Worcester Electric Light Co.*, P. U. R. 1927C, 705, 713-714 (1927).

¹⁴ "The conclusion is irresistible that, considering the low dividends paid on the money put into the capital stock of these companies from the time of their

boards have stressed the necessity for maintaining the credit of a utility to make it possible for it to attract new capital as needed.¹⁵

The Basis for the Computation of the Return

Under most systems of regulation, the determination of the "rate base"¹⁶ upon which the utility is to be allowed to earn a

organization, together with the fact that the company has not, out of the revenue received, been able to keep up its property, the rate-paying public has, up to the present time, been receiving service at substantially less than its cost. Resolving every reasonable doubt against the petitioner's management, we are driven irresistibly to the conclusion that at no time have the rates charged been adequate to meet the fair cost of the service. Up to the present time, as between investors in and patrons of this street railway company, the patrons have had much the better of the bargain." *Middlesex & Boston Rate Case*, 2d Ann. Rep. Mass. P. S. C. 99, 137 (1914).

"The payment of dividends in recent years without adequate provision for depreciation, or, indeed, maintenance, is open to criticism; but the amounts paid have been so small, especially when averaged throughout the life of the company, that they do not seriously affect the situation. . . . The fact that dividends have been paid at times practically at the expense of the property merely neutralizes any claim which might otherwise have been made to a return higher than normal. Under the circumstances, we think that the company is entitled to a return of 6 per cent upon the investment represented by its outstanding stock and bonds and by one half its floating debt. In view of the lack of satisfactory information in regard to this debt, this is a liberal estimate." *Re Concord, Maynard & Hudson Street Railway Co.*, 5th Ann. Rep. Mass. P. S. C. 64, 71, P. U. R. 1917E, 59, 68 (1917). See also *New Bedford and Onset Rate Case*, 3d Ann. Rep. Mass. P. S. C. 89, 109, P. U. R. 1915F, 264, 287 (1915); *Massachusetts Northeastern Rate Case*, 4th Ann. Rep. Mass. P. S. C. 122, 136, P. U. R. 1917A, 331, 348 (1916).

¹⁵ The importance of this factor was perhaps most clearly recognized in the *New England Telephone & Telegraph Company Case*.

"The people of Massachusetts want adequate telephone service. They cannot have this unless the company can raise the funds necessary for such service and its development. The company cannot do this unless it can maintain its credit. It must, in order to do this, be able to sell large quantities of shares of its stock to its stockholders or others. It cannot under the law sell its shares of stock below par. Its shares of stock will not sell in large quantities at par unless small quantities sell in the stock market somewhat above par. Hence it follows inevitably that the company must earn such an annual dividend as will maintain the price of shares of its stock above par in the stock market. Such a dividend demanded by economic necessity is, in substance, what courts call 'a fair return.'" P. U. R. 1925E, 739, 743-744 (1925).

See also *Middlesex & Boston Rate Case*, 2d Ann. Rep. Mass. P. S. C. 99, 144 (1914); *Bay State Rate Case*, 4th Ann. Rep. Mass. P. S. C. 3, 10, 12 (1916); *Federated Civic Clubs v. Springfield St. Ry. Co.*, P. U. R. 1925A, 127, 128, 129 (1924).

¹⁶ The term "rate base" may be defined as the valuation placed upon public

return is the most important step in the process of rate regulation. The significance of the rate base arises from the fact that, in most jurisdictions, it is considered the primary factor in determining the reasonableness of the rates charged by a public utility. "We hold, however, that the basis of all calculations as to the reasonableness of rates to be charged by a corporation . . . must be the fair value of the property being used by it for the convenience of the public."¹⁷ This has been the position consistently maintained by the Supreme Court since 1898.

Although they have from time to time recognized the controlling nature of this ruling of the Supreme Court, the various Massachusetts commissions have not relied upon valuation to determine the base upon which the utilities within their jurisdiction should be permitted to earn a return. On several occasions the regulatory boards, particularly the Board of Gas and Electric Light Commissioners, have paid lip service to the fair value idea.¹⁸ In such cases, the commissions have never, so far as can be ascertained from an analysis of the cases, used the present value of the property as the determining factor in fixing rates, but have simply stated that the rates fixed were adequate, in the opinion of the regulatory body, to afford a fair return upon such present value.¹⁹

utility properties for rate-making purposes. (See L. R. Nash, *Economics of Public Utilities*, p. 115.) The word "value" is used to cover so many different concepts that the use of the more restricted term "rate base," when referring to the basis upon which the rates of public utilities are to be calculated, seems preferable.

¹⁷ *Smyth v. Ames*, 169 U. S. 466, 546 (1898).

¹⁸ *Salem Petitions*, 24th Ann. Rep. Mass. G. & E. L. C. 15, 16-17 (1908); *Boston Edison Illuminating Co.*, 24th Ann. Rep. Mass. G. & E. L. C. 20, 32 (1908); *Charlestown Petition*, 26th Ann. Rep. Mass. G. & E. L. C. 19, 22 (1910).

¹⁹ "The Board gave, so far as it is aware, careful attention to all the facts and theories urged by the parties. It reached its conclusion in the light of all the facts and considerations set forth. . . . The several valuations set forth by the parties with such 'delusive exactness,' to borrow Mr. Justice Holmes' recent words, should be of itself sufficient to show that rate making has not yet achieved the position of an exact science. The Board believes that the price hereinafter named is fair and reasonable, and will be sufficient to cover all reasonable operating costs, a reasonable allowance for depreciation and a fair return upon the value of the property which the company is actually and necessarily employing for the public convenience." *Haverhill Gas Light Co.*, 28th Ann. Rep. Mass. G. & E. L. C. 41, 59 (1912).

The cost of reproduction less depreciation has been summarily rejected by the Massachusetts commissions whenever it has been presented as a measure of the rate base upon which the utilities should be permitted to earn a return. In 1914, the Public Service Commission held "that reproduction either with or without depreciation, while it may be considered, is not, under our law, to be taken as the determining basis for reckoning rates."²⁰ Among the objections urged against the use of this measure, the regulatory boards have said that it works injustice to the consumer by allowing the capitalization of past excessive earnings which have been reinvested in the plant, that it works injustice to investors in deducting depreciation that has accrued prior to the creation of a depreciation reserve, that it is based upon "premises and experiences open to wide range of debate," that equally reputable engineers reach irreconcilable results in their valuations.²¹ In the Worcester Electric Light Company case, decided in June, 1927, the present commission expressed its disapproval of reproduction cost in the following terms:

We are of the opinion that in this Commonwealth a rate based upon reproduction value, less observed depreciation, is not only unsound legally and historically but also economically. It assumes the reproduction of a plant, which as a matter of fact would not be reproduced as is, and on a basis which men of sound business judgment do not consider

"We have thought it fitting in passing to make allusions to the so-called Federal rule as so much time was devoted in the hearings to it and to the introduction of evidence under it. Viewed from either the Federal or the so-called Massachusetts theory, an amount of revenue sufficient to meet the operating expenses and fixed charges of the company provide a reasonable reserve for depreciation and insure the payment of reasonable dividends that will readily attract new capital necessary for the proper development of the company, in our judgment will yield a fair return either upon the fair value of the property devoted to the public welfare or upon the investment of the stockholders." *New Eng. Tel. & Tel. Co.*, P. U. R. 1925E, 739, 745 (1925).

For similar expressions, see *Re Scituate Water Co.*, 35th Ann. Rep. Mass. G. & E. L. C. 25, 28-29 (1919), P. U. R. 1919D, 844, 849; *Customers v. Worcester Electric Light Co.*, P. U. R. 1927C, 705, 715 (1927).

²⁰ *Middlesex & Boston Rate Case*, 2d Ann. Rep. Mass. P. S. C. 99, 112 (1914).

²¹ *Ibid.*, 107-108 (1914); *Northampton Gas Petitions*, 31st Ann. Rep. Mass. G. & E. L. C. 19, 24, P. U. R. 1915A, 618, 625-626 (1915); *Re Scituate Water Co.*, 35th Ann. Rep. Mass. G. & E. L. C. 25, 28, P. U. R. 1919D, 844, 849 (1919).

in determining the value of their plants for other than rate-making purposes. Depending as it does upon the level of prices of labor and materials projected into the future, it creates a constantly varying base, which is not easily or speedily capable of determination, but, on the contrary, involves long and expensive investigations, culminating in a composite guess not based wholly upon facts but upon conjectures as to the future. And when that composite guess, called the reproduction value, is finally determined, the factors may have so changed that it can no longer be of value, and the process must be repeated. It does not enable justice to be done speedily and efficiently either to the public or to the investor. In periods of enhancement of prices, the public, under this theory, is compelled to pay exorbitant rates. In periods of depressed prices the investor is compelled to receive much less than a fair return upon the capital invested. A goodly portion of the plants of many of our electric companies was built after the war in an era of high prices. If there should be a sharp decline in prices in the next ten years, rates, based upon the reproduction theory, would be such as would prevent the investor from receiving a fair, if any, return upon his investment. A theory which produces such results cannot be maintained.²²

Since the Massachusetts utilities have been compelled to issue securities at large premiums whenever the market price of their stock made it possible to do so, it might be expected that the aggregate market value of a utility's outstanding securities would be used as a measure of the appropriate rate base. The regulatory commissions have held that the requirement that additional stock be issued at premiums justified them in permitting a rate of return in excess of what would otherwise be considered reasonable;²³ but they have not accepted the aggregate market value of the outstanding securities as indicative of the proper rate base. In passing upon the Northampton Gas Petition, in 1915, the Board of Gas and Electric Light Commissioners dismissed the suggestion that they consider the market value of the utility's securities in the following words:

Under some circumstances the market value of the company's stock might offer an indication of the value of its property. In this case, however, ever since the purchase of its stock by the Massachusetts Lighting Companies in 1910 at a large premium, the stock has been

²² P. U. R. 1927C, 705, 709-710 (1927).

²³ *Haverhill Gas Light Co.*, 28th Ann. Rep. Mass. G. & E. L. C. 41, 58 (1912).

withdrawn from the market and held as one of the assets against which the securities of that association have been issued. There is consequently no present established market value of this company's stock.²⁴

In its decision in the Middlesex and Boston Rate case in 1914, the Public Service Commission laid the foundation for the so-called Massachusetts rule, that public service companies are entitled to earn a return upon the prudently invested capital.²⁵ There had been some earlier hints that the Massachusetts authorities inclined toward considering invested capital a natural basis for estimating the return. Thus the Board of Gas and Electric Light Commissioners, in discussing the authority granted gas companies to furnish electric lighting service, said: "Capital on the other hand, prudently devoted to these objects, is entitled to fair compensation."²⁶ And in 1904, the Board of Railroad Commissioners stated, "That a company is entitled to a fair return upon actual investment is a rule so often announced as to have become somewhat stale in the statement."²⁷ But these early and sporadic statements were without any influence upon the later development of the so-called "prudent investment rule" in Massachusetts. In the Haverhill Gas case (1912), the company, with a capital stock of \$75,000 and outstanding notes of about \$275,000, claimed assets of approximately \$1,219,000. The board made no definite finding as to the rate base and gave no clear statement of the theory upon which it proceeded.²⁸ The rate was finally fixed at 80 cents, midway between the rates suggested by the company and the representatives of the city. There was, moreover, no discussion of "prudent investment" as a rate base.

In the Middlesex and Boston Rate case,²⁹ there was the first considerable discussion, by a Massachusetts commission, of the basis upon which a fair return should be reckoned. The towns

²⁴ *Northampton Gas Petition*, 31st Ann. Rep. Mass. G. & E. L. C. 19, 24, P. U. R. 1915A, 618, 625 (1915).

²⁵ *Middlesex & Boston Rate Case*, 2d Ann. Rep. Mass. P. S. C. 99 (1914).

²⁶ 3d Ann. Rep. Mass. G. & E. L. C. 68-69 (1887).

²⁷ *Warren, Brookfield and Spencer Street Railway*, 36th Ann. Rep. Mass. R. C. 19 (1904).

²⁸ 28th Ann. Rep. Mass. G. & E. L. C. 41 *et seq.* (1912). R. H. Whitten, and D. F. Wilcox, *Valuation of Public Service Corporations*, I, 301.

²⁹ 2d Ann. Rep. Mass. P. S. C. 99-148 (1914).

served by the Middlesex and Boston company urged before the Public Service Commission that the street railway be permitted to earn a return only upon the present value of its property.³⁰ The company, so far as it sought any particular rate base, represented that it should be permitted to earn upon its capitalization. This unusual alignment of contentions arose from the fact that the present value of the street railway's property was considerably less than the investment therein. There was a large amount of accrued depreciation for which no reserves had been accumulated.³¹ Nor was this wholly the company's fault, for it had paid only moderate dividends, averaging, during the six years prior to 1914 slightly more than four per cent.³² The company was in such desperate financial straits that the commission felt impelled to permit an increase in rates. It was in the attempt to justify this increase in rates that the Public Service Commission developed and enunciated the so-called prudent investment rule which has become associated with the Massachusetts regulatory policy.

After having condemned the use of reproduction cost estimates as the basis of the return, the commission attempted to present the prudent investment base as the long-standing policy implicit in the regulation of security issues.

These principles are nothing new in the theory of Massachusetts regulation. . . . there has hitherto been little occasion to deal in detail with the principle that investment and not reproduction cost is in Massachusetts the basis of the relation between the rate-paying public

³⁰ *Middlesex & Boston Rate Case*, 2d Ann. Rep. Mass. P. S. C. 99, 105 (1914).

³¹ "The Commission does not now undertake to make an accurate and detailed finding as to the amount of depreciation that ought to have been charged by this company annually as a part of operating expenses. It is a matter of common knowledge among men conversant with street railway conditions in Massachusetts that few, if any (particularly of the less prosperous street railway companies), have of recent years charged to annual operating expense sufficient amounts to cover real depreciation. . . ."

"The conclusion is irresistible that, considering the low dividends paid on the money put into the capital stock of these companies from the time of their organization, together with the fact that the company has not, out of the revenue received, been able to keep up its property, the rate-paying public has, up to the present time, been receiving service at substantially less than cost." *Ibid.*, pp. 134, 137 (1914).

³² *Ibid.*, p. 139.

and the investing public; but any other theory will be found, upon examination of our statutes and of earlier decisions, to be utterly inconsistent with Massachusetts law. From the time of the granting of the earliest charters in this Commonwealth to railroad corporations, practically all of our legislation dealing with the rights of public service corporations have gone upon the theory that their capitalization should be limited to actual capital invested and that rates were to be figured upon the capital.³³

Having thus given to the doctrine a flavor of venerableness, and having pronounced that, in its judgment, this would maintain equal justice toward both the consumer and the investors, the Public Service Commission enunciated the now famous Massachusetts rule:

Accordingly, we rule that under Massachusetts law capital honestly and prudently invested must, under normal conditions, be taken as the controlling factor in fixing the basis for computing fair and reasonable rates; that if there is mismanagement causing loss, such loss must be charged against the stockholders legally responsible for the mismanagement; that reproduction cost either with or without depreciation, while it may be considered, is not under our law, to be taken as the determining basis for reckoning rates.³⁴

In the Blue Hill Rate case, in 1915, the Public Service Commission gave a more detailed interpretation of its conception of "honest and prudent investment."³⁵ The commission held that stocks and bonds, issued under statutes requiring the regulatory board to find that such issues were reasonably necessary for corporate purposes, were, in the absence of proof to the contrary, to be accepted as conclusive evidence of honest and prudent investment.³⁶ But

³³ *Ibid.*, p. 109. At page 111, the Commission added:

"All through the statute law and the earlier decisions of this board, runs the theory that the capitalization of a public utility company in this commonwealth is to represent only honest investments, and that such rates are to be allowed as will yield a fair return upon such investments, including, particularly in the earlier legislation, fair or even generous payments for the risks that the investors ran."

³⁴ *Ibid.*, pp. 111-112.

³⁵ *The Blue Hill Rate Case*, 3d Ann. Rep. Mass. P. S. C. 52-88, P. U. R. 1915E, 370-411 (1915).

³⁶ 3d Ann. Rep. Mass. P. S. C. 52, 59-61, P. U. R. 1915E, 370, 380-382 (1915).

floating indebtedness, incurred without regulation, it was stated, must be examined before it could be accepted as investment entitled to a full return.³⁷ In this case, also, the commission stated that the Massachusetts rule required the utility to exercise the same "honesty and prudence in the management and maintenance as in the original acquisition of its properties."³⁸ The value of the property was expected to be kept equal to, or in excess of, the aggregate par value of the outstanding securities. In regard to the propriety of making a deduction for accrued depreciation, the commission said:

If through some fault of its own it [the company] has failed to make due provision for depreciation, it cannot reasonably expect the public to pay a return upon that portion of the investment which it has neglected to preserve. But under a consistent application of this theory, it would seem in general that deduction should be made for the depreciation which comes from age and use in so far only as the failure to make provision for it is due to the payment of unwarranted dividends or is otherwise attributable to mismanagement.³⁹

In this particular case, the company had been paying the stockholders no dividends whatever, and its earnings had been low. The commission concluded that the failure to make provision for accrued depreciation could not be charged against the management, and that, therefore, the investment should not be diminished by deducting the amount of depreciation.⁴⁰ This refusal to deduct accrued depreciation where the company's earnings have been insufficient to provide for it, in addition to paying a fair return upon investment, was a logical step in the development of the prudent investment doctrine.

In the Bay State Rate case in 1916, the commission, after quoting from the decision in the Middlesex and Boston case, stated that they found no need to alter the rule that capital honestly and prudently invested must be accepted as the controlling factor in computing the reasonableness of rates of Massachusetts utilities.⁴¹

³⁷ 3d Ann. Rep. Mass. P. S. C. 52, 61, P. U. R. 1915E, 370, 382 (1915).

³⁸ 3d Ann. Rep. Mass. P. S. C. 52, 75, P. U. R. 1915E, 370, 398 (1915).

³⁹ *Ibid.*

⁴⁰ 3d Ann. Rep. Mass. P. S. C. 52, 76, P. U. R. 1915E, 370, 398-399 (1915).

⁴¹ *Re Bay State Street Railway Co.*, 4th Ann. Rep. Mass. P. S. C. 3, 11-12, P. U. R. 1916F, 221, 233 (1916).

In this instance, however, the determination of the prudent investment from the aggregate par value of the outstanding securities was declared to be impossible since about \$11,000,000 of the total of nearly \$49,000,000 had been issued without regulatory supervision.⁴² Moreover, the accounts had not been accurately kept, so that the book value of the property was held not to be a reliable guide to the proper rate base.⁴³ The company hired experts, made an inventory, and arrived at an estimate of the historical cost to date. This figure was presented as evidence of the prudent investment. The company's claim for a rate base of \$42,987,405 was, upon analysis by the commission, reduced to \$39,104,310, which was declared to be the proper base.⁴⁴ One of the chief reasons usually urged for the use of the prudent investment base instead of present fair value is the greater ease and certainty in ascertaining the former: but when the commission is reduced to estimating the fair original cost of existing property, this method has lost any advantage of greater certainty it may have otherwise been held to possess.

The Massachusetts rule as stated was followed by the Public Service Commission in the subsequent cases. Capital honestly and prudently invested was said to be the basis upon which rates were regulated; and where the outstanding securities had been issued under regulatory supervision, their aggregate amount was accepted, in the absence of proof to the contrary, as the measure of the prudent investment.⁴⁵ In most of these cases the commission made no attempt to find the exact rate base, but tried to adjust

⁴² 4th Ann. Rep. Mass. P. S. C. 3, 33 *et seq.*, P. U. R. 1916F, 221, 253 *et seq.* (1916).

⁴³ *Ibid.*

⁴⁴ 4th Ann. Rep. Mass. P. S. C. 3, 16, 52, P. U. R. 1916F, 221, 258, 275 (1916).

⁴⁵ For other statements of the "Massachusetts rule" see the following cases: *Norfolk and Bristol Rate Case*, 3d Ann. Rep. Mass. P. S. C. 112, at page 122, P. U. R. 1915E, 411, at page 423 *et seq.* (1915); *Boston and Worcester Rate Case*, 5th Ann. Rep. Mass. P. S. C. 47, at page 51, P. U. R. 1917F, 833, at page 838 (1917); *Holyoke Rate Case*, 5th Ann. Rep. Mass. P. S. C. 76, at pages 77-78, P. U. R. 1918B, 212, at page 215 (1917); *Springfield Rate Case*, 6th Ann. Rep. Mass. P. S. C. 211, at pages 240-241, P. U. R. 1918C, 515, at page 547 (1918); *Worcester Consolidated Fares*, 7th Ann. Rep. Mass. P. S. C. 37, at pages 42-43 (1919).

rates so as to permit the utilities to pay reasonable dividends upon their stock. In the case of *Donham v. Public Service Commissioners*, the Supreme Judicial Court of Massachusetts referred with approval to this so-called Massachusetts rule.⁴⁶

In the New England Telephone Company case in 1925, the Massachusetts Department of Public Utilities accepted the rule developed by the Public Service Commission that the prudent investment, as represented by the outstanding securities, should be taken as the measure of the rate base upon which public utilities in Massachusetts should be permitted to earn a return. In regard to the proper rate base, it said:

This Commonwealth has been the pioneer in the regulation of public utilities. It has controlled the issue of securities and their price for decades and, as a consequence, had proceeded upon the theory that these securities thus issued constitute the proper base. Stated tersely, it is the money honestly and prudently invested and devoted to the public service that is entitled to earn a fair return. This doctrine grew out of the general practice obtaining in Massachusetts in such matters, and in its fundamental thesis conforms to economic necessities and is based upon the actual facts, as opposed to doctrinaire theories. No evidence was presented that the company's outstanding securities do not now represent property of their face value or that the company is not entitled to earn a fair return upon its outstanding securities and the par value of its capital stock, or, to put it in practical terms, to earn enough to keep the price of its stock above par.⁴⁷

In this case, however, the commission did not consider it necessary to make a definite finding as to the value of the utility's property or the amount of the prudent investment. It simply stated that in its opinion the rates allowed would permit a fair return to be earned upon either base.

Despite the fact that prudent investment is said to be the principal factor in the regulation of rates, the Massachusetts commissions have given no clear definition of prudent investment. There has been no mention of prudent investment in the statutes relative to rate regulation. A cursory analysis of the more important rate cases suffices to demonstrate that the commission

⁴⁶ *Donham v. Public Service Commissioners*, 232 Mass. 309, 313 (1919).

⁴⁷ *Re New Eng. Tel. & Tel. Co.*, P. U. R. 1925E, 739, 744 (1925).

itself has not always used this term in the same sense. And the meaning in which this term has been used by the representatives of the utilities has differed from the meanings assigned to the term by the Massachusetts commissions.

In the first instance, prudent investment might be taken as equivalent to capitalization: i.e., it might be measured by the aggregate par value of the outstanding securities. This seems to have been the original meaning of the term as used by the Public Service Commission. The expression used in the "rule" was "capital honestly and prudently invested."⁴⁸ Of course, capital has a variety of meanings. In the present use, it might mean the fixed physical capital of the utility, the cost of such physical property, the total amount of money invested therein by the security holders, or the aggregate par value of the outstanding securities. Inasmuch as the capitalization of the utilities was accepted as measuring the investment in the early cases, it seems clear that the commission was not interested in the physical capital of the company but in the money paid in by the investors. In the Middlesex and Boston case, it was said: "Our whole anti-stock-watering public utility code rests on the assumption that rates are to be mainly determined by figuring a fair return on capital, and that, therefore, *capital should accurately represent investment, no less and no more.*"⁴⁹ But the use of capitalization to measure investment involves a serious inconsistency for, as regards most of the Massachusetts utilities, the stock has usually been issued at premiums and hence the investment—the money paid in by the investors—is in excess of the capitalization. Capitalization and investment are not equivalent.

In the second instance, prudent investment might be defined as the paid-in capital; i.e., the aggregate par value of the outstanding securities plus paid-in premiums. Used in this way, prudent investment is the amount of money actually paid into the corporate treasury by the investors. This is the sense in which the present Department of Public Utilities has used the term prudent investment.⁵⁰

⁴⁸ *Supra*, p. 115.

⁴⁹ 2d Ann. Rep. Mass. P. S. C. 99, 111 (1914). Italics supplied.

⁵⁰ See *Customers v. Worcester Electric Light Company*, P. U. R. 1927C, 705

As a third possible meaning, prudent investment might be the original cost to date. Original cost to date would be the summation of the actual amounts paid for the property of the utility—less, of course, any sums that might have been imprudently invested and the cost of any property withdrawn from service. This is the meaning usually assigned to the term by those connected with the management of utilities. Thus Mr. L. R. Nash states that investment may be defined

. . . as including the direct proceeds from the sale of the outstanding securities, the earned surplus which has been left in the business, reserves which may properly be considered as belonging to the owners, and, under certain conditions, the cost of the property retired but not removed from fixed capital account, and necessary losses in operation during early years.⁵¹

This definition would include every element of cost to the utility. Needless to say, this has not been adopted by any of the Massachusetts commissions as coinciding with their conception of prudent investment.

Mr. Justice Brandeis has used prudent investment as the equivalent of historical cost. Historical cost is defined as "the proper cost of the existing plant and business, estimated on the basis of the price levels existing at the respective dates when the plant and additions were constructed."⁵² In indicating the difference between original cost to date (or actual cost) and historical cost, Mr. Brandeis stated:

In determining actual cost, whatever the evidence, there is no attempt to determine whether the expenditure was wise or foolish, or whether it was useful or wasteful. Historical cost, on the other hand, is the amount which normally should have been paid for all the property which is usefully devoted to the public service. It is, in effect, what is termed the prudent investment. In enterprises efficiently launched and developed, historical cost and original cost would practically coincide both in items

(decided June 3, 1927); *Customers v. Cambridge Electric Light Company*, P. U. R. 1928C, 24 (decided January 31, 1928).

⁵¹ Nash, *op. cit.*, p. 117.

⁵² *S. W. Tel. Co. v. Pub. Serv. Comm.* (Mo.), 262 U. S. 276, 294, footnote 6 (1923).

included and in amounts paid. That is, the subjects of expenditure would coincide; and the cost at prices prevailing at the time of installation would substantially coincide with the actual cost.⁵³

All of these meanings of investment or prudent investment have their merits and defects, depending on the point of view of the critic. It is not the purpose of the present writer to evaluate these different definitions. They are presented simply to indicate the absence of a definite and universally accepted usage of this fundamental term.

Uncertainty as to the meaning of prudent investment would not be obviated when a meaning for investment has been fixed upon. There still remains the question as to what constitutes prudence or imprudence in investment. What is imprudence? By whom and when is imprudence to be ascertained? These questions bid fair to remain a serious obstacle to the easy and certain application of a prudent investment rule. Mr. Justice Brandeis recognized the dangers to utility development in any attempt to place too rigid an interpretation upon prudent, when he said:

The term prudent investment is not used in a critical sense. There should not be excluded from the finding of the base, investments which, under ordinary circumstances, would be deemed reasonable. The term is applied for the purpose of excluding what might be found to be dishonest or obviously wasteful or imprudent expenditures. Every investment may be assumed to have been made in the exercise of reasonable judgment, unless the contrary is shown.⁵⁴

In the *Middlesex and Boston* case, the commission stated that it would refuse to allow any or, at any rate, a full return upon investments that it found to be imprudent, but it gave no intimation as to what should be taken to constitute prudence or imprudence.⁵⁵

⁵³ *Ibid.*

⁵⁴ *Ibid.*, p. 289, n. 1.

⁵⁵ "It is only money honestly and with reasonable prudence invested in a public utility that is entitled to earn a full return. If the Commission finds a street railway company investing money in building extensions contrary to the dictates of reasonable prudence and sound business judgment it is its plain duty to refuse any, or at any rate a full return upon such investment." *Middlesex & Boston Rate Case*, 2d Ann. Rep. Mass. P. S. C. 99, 115-116 (1914). Quoted in *Blue Hill Rate Case*, 3d Ann. Rep. Mass. P. S. C. 52, 77, P. U. R. 1915E, 370, 400 (1915).

In the Blue Hill case, the commission sounded a warning against declaring any investment imprudent except on conclusive evidence:

In view of the economic value, in general, to the commonwealth of even street railway lines whose existence seems hardly justified from the point of view of traffic, the Commission is not disposed to deny a return upon investment on the ground that an extension was built "contrary to the dictates of reasonable prudence and sound business judgment," except in the clearest cases.⁵⁶

When, in the Bay State Railway case, it was contended that the investment should be diminished because it was imprudent, the commission found it necessary to give a more specific meaning to the word prudent as applied to the capital investments of public utilities. It declared that the word applied, not to the wisdom or prudence of the enterprise *per se*, but to the manner in which the enterprise was carried out. That an undertaking was uncertain and involved the assumption of large risks was held not to be proof that the investment was imprudent. It was stated that an investment became imprudent in the eyes of the law only when the capital was expended in an obviously wasteful and foolish way.⁵⁷ In the matter of deciding as to the prudence or imprudence of investment, all the Massachusetts commissions have very wisely adopted a liberal, if a somewhat obscurely defined, policy.

Valuation in the Massachusetts Policy of Regulation

The foregoing discussion of the so-called Massachusetts rule raises a question as to the place of valuation in the Massachusetts scheme of regulation. At its organization in 1913, the Public Service Commission was specifically given the power to make valuations of the property of common carriers,⁵⁸ and the present Department

⁵⁶ 3d Ann. Rep. Mass. P. S. C. 52, 78, P. U. R. 1915E, 370, 400 (1915).

⁵⁷ "This contention makes it desirable to define more clearly than has hitherto seemed necessary the meaning and application of the word 'prudently' as it has been used in the phrase 'capital honestly and *prudently* invested.' It is not the enterprise itself to which this word relates so much as the manner in which it has been carried out. Whatever imprudence may be involved in risking capital in new and uncertain ventures is not in itself detrimental to the public welfare. On the other hand, if, in the carrying out of an enterprise, capital is used in a wasteful or foolish way, the contrary is clearly true." *Bay State Rate Case*, 4th Ann. Rep. Mass. P. S. C. 3, 38, P. U. R. 1916F, 221, 260 (1916).

⁵⁸ Mass. Acts of 1913, c. 784, § 14.

of Public Utilities has the same power.⁵⁹ Thus far, however, the regulatory bodies of Massachusetts have displayed no desire or intention to place any considerable reliance upon valuation.

For most regulatory commissions, the valuation of a utility's property is one of the most important steps in the regulation of rates. This is not true in Massachusetts where the commissions have rejected valuation as a means of ascertaining the appropriate rate base.⁶⁰ Although the word value is frequently used in the decisions, the Massachusetts commissions have never defined their concept of the word, and a careful reading of cases reveals that it has been used in a great variety of meanings. The references to value and to fair value seem to have been used simply by way of paying lip service to the doctrine of fair value held by the federal Supreme Court. Thus in one case it was said that in Massachusetts " 'fair value' may justly be measured by the amount of 'capital honestly and prudently invested' rather than by the cost of reproducing the property."⁶¹ In another, the board remarked that it distrusted "valuation as a decisive test of investment where actual cost of the property . . . can be ascertained."⁶² This suggests a direct reversal of the federal rule of fair value under which investment might be used as a test of value. The procedure of using the reproduction cost estimate as a measure of investment rather than as a measure of value was followed in the Bay State Street Railway case.⁶³ While in some of the earlier decisions value was used as synonymous with original cost or investment, in the more recent decisions of the Department of Public Utilities, fair value has meant simply that rate base that could be supported by the anticipated earnings.⁶⁴ Nevertheless practically all decisions in rate cases conclude with a statement of a general formula similar to the following:

⁵⁹ Mass. G. L., c. 159, § 26.

⁶⁰ *Supra*, pp. 110 *et seq.*

⁶¹ *Blue Hill Rate Case*, 3d Ann. Rep. Mass. P. S. C. 52, 73, P. U. R. 1915E, 370, 396 (1915).

⁶² *Marlborough Electric Petitions*, 31st Ann. Rep. Mass. G. & E. L. C. 38, 44, P. U. R. 1915C, 665, 671 (1915).

⁶³ 4th Ann. Rep. Mass. P. S. C. 3, P. U. R. 1916F, 221 (1916).

⁶⁴ See *Customers v. Worcester Electric Light Company*, P. U. R. 1927C, 705 (1927); *Customers v. Cambridge Electric Light Company*, P. U. R. 1928C, 24 (1928).

The Commission is of the opinion that the price hereinafter named is fair and reasonable, and will yield enough to provide for all proper operating expenses, including depreciation and a fair return upon the value of the property which the company is actively and necessarily employing for the public convenience.

These statements are not sufficient, however, to convince a cautious reader that value and valuation are material elements in the Massachusetts regulation of rates.

The place of valuation in the regulation of security issues has already been considered at length above.⁶⁵ In general, the commissions were instructed not to authorize the issue of securities in excess of the value of the property; but if they did so, they were to make some provision whereby the utility should make good the deficiency in its capitalization.⁶⁶ In consolidation cases it was apparently the rule that not only should the aggregate amount of the stock and debt not be increased, but also that the amount of stock and bonds of the new company should not be in excess of the value of the property.⁶⁷ In the reorganization of street railways, the commission may permit the issue of securities to an amount

⁶⁵ Chap. II.

⁶⁶ *Supra*, pp. 37 *et seq.*

In 1915, the Board of Gas and Electric Light Commissioners authorized the Marlborough-Hudson Gas Company to issue and sell stock to the amount of \$70,000 at par, the proceeds to be used for the payment and cancellation of an equal amount of its promissory notes that had been issued to pay for extensions and improvements. In its order, however, the board imposed the condition that no dividend should be paid in any year in excess of 5 per cent upon its capital stock until the fair structural value of its plant and land should be equal to the amount of its outstanding stock and debt, by expenditures from income either to reduce the indebtedness or to make additions to the plant. 31st Ann. Rep. Mass. G. & E. L. C. 92, P. U. R. 1915E, 121 (1915).

⁶⁷ *Supra*, pp. 73 *et seq.*

In the Norfolk & Bristol case, the commission said:

"It thus appears that the amount of stock *and debts* of the new company, allowing for the \$5,000 cash capital contributed, exceeded the replacement cost of the property, as determined by the board, by \$8,000 and exceeded the total investment claimed by the syndicate by \$46,329.41. Under the ruling in the Middlesex and Boston case, \$8,000 of the floating debt incurred in the purchase was, therefore, illegal." 3d Ann. Rep. Mass. P. S. C. 112, 117, P. U. R. 1915E, 411, 418 (1915).

equal to the "fair cost of replacing" the property.⁶⁸ In all of these cases in which valuation has been named as a basis for security issues, the apparent intent of the law was, and is, that the value should be measured by the cost of reproduction less depreciation.

Finally the valuation process is used to determine the fair purchase price in the case of the purchase of a utility by a city or town.

Capitalization and Regulation in Massachusetts

Under a scheme of rate regulation such as that developed in Massachusetts, it would be expected that much emphasis would be placed upon the capitalization of public service companies, and an examination of the decisions of the Massachusetts commissions reveals that such has been the case. Because of the theoretical significance of capitalization, it seems desirable to give some consideration to the statements of the regulatory authorities concerning the relations between capitalization and rates, capitalization and investment, capitalization and cost, and capitalization and value.

The question as to what relation, if any, exists between the capitalization of a utility and the rates charged for its service, has ever been a source of dispute between the public and the executives of the utilities. Where the rates charged by a utility are based definitely upon the fair value of the property placed at the service of the public, the capitalization would seem to have little influence

⁶⁸ *Supra*, pp. 76 *et seq.*

In *Re Withington*, the Public Service Commission said:

"Some question has been raised as to the meaning of the statutory language. In the opinion of the Commission the words, 'fair cost of replacing' are equivalent to 'cost of reproduction new less accrued depreciation,' and this is, it seems, the interpretation which has always been given to the words in practice in the past. Manifestly it is the intent of the statute that a company organized to take over street railway property purchased at a receiver's sale shall start with a clean slate, not handicapped by the past and in at least as favorable a position as though the enterprise were entirely a new one. In order that this may be the case, the capitalization of such a company must be based upon the depreciated value of the property acquired." 4th Ann. Rep. Mass. P. S. C. 259, P. U. R. 1917B, 410, 411-412 (1916).

Although the law permits the authorization of securities up to the full replacement value of the property, the present writer has found no case where the regulatory commission has considered it necessary or advisable to permit the issue of such an amount of securities.

upon such rates. It has been pointed out, however, that the presence of an excessive issue of securities places the utility operators under a pressure to pay dividends upon such stock, that the expectation of these dividends results in a situation where the failure to make such dividend payments reacts unfavorably upon the credit of the corporation, and that anything which impairs the credit of a company results in higher rates or poorer service or both.⁶⁹

The Massachusetts commissions have always insisted that there was, and is, in Massachusetts, a close connection between the capitalization of a utility and the rates charged for the service rendered. All through the reports and decisions of these boards there occur such statements as the following: "The capitalization of companies is an important factor governing the price of gas";⁷⁰ "it cannot be too strongly impressed upon the companies that an overcapitalization, or watered stock, is a perpetual and unjust burden upon consumers";⁷¹ "owing to the important relation which the capital of a company, monopolistic in its character, sus-

⁶⁹ J. C. Bonbright, *Railroad Capitalization* (Columbia University. "Studies in History, Economics and Public Law," XCV, No. 1), 13-63.

"Credit forms the connecting link between capitalization on the one hand, and rates and service on the other. It is the failure to appreciate the indirect nature of this connection that has been responsible for the conflicting views on the subject." P. 44.

"Having in mind this tendency of the *expected* rate of dividends to become a quasi-fixed charge, we can see that the amount of outstanding common stock is not wholly a matter of indifference, as so many practical financiers have maintained. An excessive issue of common stock is dangerous for the reason that it *tends to create an expectation of excessive dividends*." Pp. 51-52.

"Common stock has no fixed rate of dividends; and this fact has led some financiers to assert that the amount of the issue is a matter of indifference. But we cannot accept this view. It fails to take account of the fact that even on common stock the dividends are not perfectly flexible. Although in theory they are supposed to be determined by actual earnings, in practice they are apt to be held at the *expected* rate. This rate becomes a quasi-fixed charge, and failure to pay it reacts on the corporate credit in the same way as would the passing of a preferred dividend. Even more harmful than the *failure* to pay an expected dividend is its *actual payment* out of capital when it has not been earned. Yet an over-capitalized company is under pressure to do this very thing rather than to admit that it cannot pay its dividends." P. 62.

⁷⁰ 3d Ann. Rep. Mass. G. & E. L. C. 21 (1887).

⁷¹ 4th Ann. Rep. Mass. G. & E. L. C. 24 (1888).

tains to the price charged for its service . . .",⁷² ". . . the well-founded conviction that the volume of securities outstanding against any public utility has a potent effect upon both rates and quality of service, since prices are made and maintained to meet the expectations of stockholders as to dividends, and service may be seriously impaired by a continued endeavor to meet those expectations";⁷³ ". . . the assumption that rates are to be mainly determined by figuring a fair return on capital. . . ."⁷⁴ It was this conviction that the relation between capitalization and rates was close and direct that has been responsible for statutory regulation of the security issues of public service companies.⁷⁵

In no state is there any uniform relation between the capitalization of the public utility companies and the actual investment therein. In most jurisdictions, the attainment of an equivalence between capitalization and investment has been prevented by two things: the difficulty of eliminating existing overcapitalization and the necessity of occasionally marketing new issues of securities at a discount.⁷⁶ But in Massachusetts, the Public Service Commission stated that it was an avowed purpose and policy of their regulation to maintain an equality between capitalization and investment, that "capital should accurately represent investment, no less and no more."⁷⁷ Because overcapitalization has never become prevalent in Massachusetts, it has been possible for the regulatory commissions of that state to enforce, in most instances, the policy that the aggregate par value of outstanding securities should not exceed the fair value of the corporation's property. But this policy of maintaining an equivalence between capitalization and investment has been deliberately violated by the "anti-stock-watering" legislation which has required utilities to issue new securities at premiums when the market conditions made this possible.⁷⁸ As

⁷² 25th Ann. Rep. Mass. G. & E. L. C. 11-12 (1909).

⁷³ 29th Ann. Rep. Mass. G. & E. L. C. 12 (1913).

⁷⁴ *Middlesex & Boston Rate Case*, 2d Ann. Rep. Mass. P. S. C. 99, 111 (1914).

⁷⁵ *Supra*, pp. 76 *et seq.*

⁷⁶ Bonbright, *op. cit.*, p. 91.

⁷⁷ *Middlesex & Boston Rate Case*, 2d Ann. Rep. Mass. P. S. C. 99, 111 (1914). See also *Interstate Consolidated Street Railway Case*, 27th Ann. Rep. Mass. R. C. 165, 171 (1895).

⁷⁸ *Supra*, Chap. II, pp. 30 *et seq.*

a result of the operation of this legislation, Massachusetts occupies a unique position in relation to the rest of the states in that the capitalization of their utilities, in general, is less than the actual investments of the security holders therein.

Under the Massachusetts regulatory *régime* there has been no attempt made to secure any equivalence between capitalization and cost. Although the commissions have occasionally referred to capitalization as measuring the cost of a utility's property, it is a safe generalization to say that, for most of the local utilities, the cost of their property has been greatly in excess of the par value of their outstanding securities. This situation has resulted from two phases of the Massachusetts policy; reference has already been made to the legislation requiring, when possible, that a utility sell new stock at premiums;⁷⁹ in the second instance, the regulatory commissions have encouraged the utilities to "plow back" into the property a considerable portion of their earnings. Many successful companies have paid for practically all their additions and betterments out of earnings. Thus for the more successful companies, the cost of their properties has been vastly in excess of their capitalization.

It is obvious that, from the standpoint of effective regulation, it would be desirable to have the value (or rate base) of a utility coincide approximately with the par value of the outstanding securities. In Massachusetts, however, the connection between capitalization and fair value is even more remote than that between capitalization and investment or capitalization and cost. The general prevalence of a capitalization considerably less than value has been due to the issue of securities at premiums, the approved policy of reinvesting earnings in improvements and extensions, and the rise in the general price level, particularly since 1914. The fact that the value of their property is far above their capitalization has caused some of the utilities, when their rates have been attacked, to seek regulation according to the federal rule which bases rates upon the present fair value of the property,⁸⁰ and this has aroused the Department of Public Utilities to

⁷⁹ *Supra*, Chap. II, pp. 30 *et seq.*

⁸⁰ *Customers v. Worcester Electric Light Co.*, P. U. R. 1927C, 705 (1927). *Customers v. Cambridge Electric Light Co.*, P. U. R. 1928C, 24 (1928). See

seek the enactment of statutory provisions designed to exempt Massachusetts from the necessity of conforming to the present value doctrine of the Supreme Court.⁸¹

Measures of the Massachusetts Prudent Investment Rate Base

In discussing the measures of the Massachusetts investment rate base, it is the *statements* of the Massachusetts commissions that are being considered rather than what has in actuality been used. In other words at this particular point, the statements of the commissions are being accepted at their face value. The Massachusetts boards have been in agreement with other state and federal commissions in holding that there is no absolutely accurate and scientific system of rate making; that it is a question of practical economics rather than the application of mathematical formulae.⁸²

Under the Massachusetts rule as stated above,⁸³ it would be expected that the amount of securities outstanding would constitute the measure of the "capital honestly and prudently invested," upon which a public service company should be permitted to earn a return. And, indeed, it was this "capitalization yardstick" which was most frequently used by the Public Service Commission and the Board of Gas and Electric Light Commissioners. The statement was repeatedly made that, where the stock and bonds had been issued subject to the approval of a regulatory board, the amount of these securities outstanding should, in the absence of conclusive evidence to the contrary, be accepted as representing also Ann. Rep. of the Department of Public Utilities (Nov. 30, 1926) at page 10:

"The electric and gas companies of this Commonwealth, on the whole, are in a very sound financial condition. This has resulted from the policy of this Commonwealth to encourage ample provisions for depreciation and the ploughing in to the property of surplus earnings. As a result there are many companies as to which it can be safely asserted that the reproduction value of the property less depreciation is substantially in excess of its outstanding capital and obligations."

⁸¹ Mass. House Documents 169 and 170 of 1928.

⁸² *Middlesex & Boston Rate Case*, 2d Ann. Rep. Mass. P. S. C. 99, 116 (1914); *Northampton Gas Petition*, 31st Ann. Rep. Mass. G. & E. L. C. 19, 26, P. U. R. 1915A, 618, 627-628 (1915); *Bay State Rate Case*, 4th Ann. Rep. Mass. P. S. C. 3, 10, P. U. R. 1916F, 221, 231 (1916).

⁸³ *Supra*, p. 115.

capital honestly and prudently invested.⁸⁴ But in nearly all these cases, the commission qualified its conclusions by remarking, as it did in the *Blue Hill* case, that the "Commission must not be understood as deciding or even intimating that \$500,000 [the approximate amount of the outstanding securities] is the amount upon which a fair return should be based";⁸⁵ and the reader is left in doubt as to just how much weight, after all, has really been given to the utility's capitalization. It is safe to say, however, that the rate base most frequently referred to by these commissions was the capitalization of the public service company.

In a few cases where the capitalization of the company in question was clearly excessive, the Public Service Commission rejected completely the use of outstanding securities as a measure of the prudent investment, but the number of such cases—where capitalization was completely rejected—was relatively insignificant.⁸⁶

The present Department of Public Utilities has shown a disposition to use capitalization plus paid-in premiums as a measure of the investment rate base.⁸⁷ Inasmuch as the premiums paid in to

⁸⁴ For statement of the Public Service Commission, see the following cases: *Middlesex & Boston Rate Case*, 2d Ann. Rep. Mass. P. S. C. 99, 111, 112 (1914); *Blue Hill Rate Case*, 3d Ann. Rep. Mass. P. S. C. 52, 59, 60, 73, 76, 78-79, P. U. R. 1915E, 370, 381, 396, 399, 401 (1915); *New Bedford & Onset Rate Case*, 3d Ann. Rep. Mass. P. S. C. 89, 100, 102, P. U. R. 1915F, 264, 277-278, 279 (1915); *Norfolk & Bristol Rate Case*, 3d Ann. Rep. Mass. P. S. C. 112, 122, P. U. R. 1915E, 411, 423-424 (1915); *Massachusetts Northeastern Rate Case*, 4th Ann. Rep. Mass. P. S. C. 122, 126, P. U. R. 1917A, 331, 337 (1916); *Re Concord, M. & H. St. Ry. Co.*, 5th Ann. Rep. Mass. P. S. C. 64, 71, P. U. R. 1917F, 59, 68 (1917); *Re Springfield St. Ry. Co.*, 6th Ann. Rep. Mass. P. S. C. 211, 219, 240, P. U. R. 1918C, 515, 525, 547 (1918).

For similar statements of the Board of Gas and Electric Light Commissioners, see the following: *Re Worcester Gas*, 3d Ann. Rep. Mass. G. & E. L. C. 48, 53 (1887); *Charlestown Petition*, 10th Ann. Rep. Mass. G. & E. L. C. 9 (1894); *Re Boston Edison Ill. Co.*, 24th Ann. Rep. Mass. G. & E. L. C. 20, 34 (1908); *Re Scituate Water Co.*, 35th Ann. Rep. Mass. G. & E. L. C. 25, 28, P. U. R. 1919D, 844, 848 (1919).

See also *Re New Eng. Tel. & Tel. Co.*, P. U. R. 1925E, 739, 744 (1925).

⁸⁵ 3d Ann. Rep. Mass. P. S. C. 52, 78-79, P. U. R. 1915E, 370, 401 (1915).

⁸⁶ *Re Hampden Railroad Corporation*, 1st Ann. Rep. Mass. P. S. C. 187, 219, 220-221 (1913); *Railroad Passenger Rate Case*, 3d Ann. Rep. Mass. P. S. C. 3, 17-18, P. U. R. 1915B, 362, 382 (1915); *Bay State Rate Case*, 4th Ann. Rep. Mass. P. S. C. 3, 31 *et seq.*, P. U. R. 1916F, 221, 253-254 (1916).

⁸⁷ *Customers v. Worcester Electric Light Co.*, P. U. R. 1927C, 705; *Customers v. Cambridge Electric Light Co.*, P. U. R. 1928C, 24 (1928).

the corporate treasury are as much a part of the actual monetary capital furnished by the investors as the money paid on the par value of the securities, the use of capitalization plus paid-in premiums clearly furnishes a more accurate indication of the amount of the capital honestly and prudently invested than would be secured by taking simply the aggregate par value of the outstanding securities.

Consideration of "Elements of Value"

Regulating on the basis of the "capital honestly and prudently invested," it would be expected that the Massachusetts commissions would be excused from any necessity of considering the various "elements of value" which are necessarily considered in arriving at a reproduction cost estimate. Nevertheless, there are to be found scattered among their decisions various statements as to the propriety of including various other elements of value in determining the proper rate base.

Under the Massachusetts prudent investment rule, the regulatory boards have included land at its original cost, denying the claims of the utilities for its inclusion at present market value. In the Bay State Street Railway case, the commission remarked that, even if it were compelled to include land at present worth, it would take the present worth for the purposes of the utility, and implied that, so long as the land was devoted to the public service, there would be no increase in its worth for that purpose.⁸⁸ The

See also *Re Springfield St. Ry. Co.*, 6th Ann. Rep. Mass. P. S. C. 211, 227, P. U. R. 1918C, 515, 533 (1918); where the Public Service Commission estimated the reasonable return by taking the actual interest paid upon bonds and floating debt and adding a return of 6 per cent upon the total par value of the outstanding stock plus all premiums paid thereon.

⁸⁸ "Considering this appreciation upon its own merits, car riders cannot fairly be expected to pay higher fares because land has increased in value, nor ought they to pay lower fares if it should decrease. If the company wishes to sell such property it is, of course, entitled to whatever profit it is able to make; but so long as land is employed in the street railway business it is dedicated to a public use and held subject to the conditions fairly attaching to such use. As the Commission has said in another connection (see House Document No. 1900 of the current year, pp. 88, 89):—

"While no fair-minded man will deny that those who put their money into public service by building railroads are entitled to the opportunity to earn a

commission also stated that to allow the inclusion of land at its present worth would be to penalize a community for its own growth.⁸⁹ It would seem evident, however, that to allow the inclusion of land at its present value in no sense penalizes the community for its own growth. The increase in land values is usually a result of the increase in population and growth of a community, and usually the presence of progressive utilities is an important factor in such community growth. A part of the increase in value of a utility's land is most certainly due to the services it renders. The increased population accompanying an increase in land values usually results in the fuller utilization of plant and property of the utility. Such conditions of fuller utilization result in the utility earning a larger profit while still maintaining the same charge per unit of service. The presence of a larger net profit does not in itself justify a reduction in the rates charged by the utility. With the increase in population, there is certainly no decrease in the value of the service to consumers; indeed there is very frequently a marked increase in the value of such service; e.g., telephone companies and street railways. There is no reason why the consuming public should be given all the benefit to be derived from the growth of the community and the increased value of the utility's land, by being given a more valuable service at a lower price. In this connection it may be observed that an appreciation in the value of a utility's lands is almost never a primary motive in causing a utility to seek an advance in rates. The appreciation in land value is generally used as a supplementary piece of evidence to aid in secur-

fair reward, and even a generous reward if they serve the public well, the notion that this reward is to be determined, so long as their property is devoted to public use, not by investment or by service rendered, but in large measure by the rapid expansion of real estate prices in the large centers of population, is contrary to sound public policy. It would mean that communities would be penalized by their own growth, and would lose all advantage from the fact that their transportation facilities were created in due season under favorable economic conditions.'

It should be added that even if the doctrine of present worth were accepted, the figure to be used in rate-making would clearly be present worth for street railway purposes. In this case no evidence whatever has been submitted that the land has increased in value for such purposes." *Bay State Rate Case*, 4th Ann. Rep. Mass. P. S. C. 3, 31, P. U. R. 1916F, 221, 253 (1916).

⁸⁹ *Ibid.*

ing an increase in rates otherwise needed, or to justify the existing rates when an attempt is made to decrease them. In general it would seem that to insist rigidly that a utility be allowed to earn only upon the original cost of its land would place the utility at a disadvantage in bidding for land in competition with industries not subject to like limitations.

The treatment by the Massachusetts commissions of the property of utilities paid for out of earnings deserves particular attention. The boards have followed the policy of encouraging the utilities to refrain from distributing all their earnings as dividends and have encouraged reinvestment in additions and betterments.⁹⁰ In more than one instance, the Board of Gas and Electric Light Commissioners took the position that ordinary additions and improvements should be paid for from earnings, and where such a course was possible refused to authorize the issue of additional securities for that purpose.⁹¹ And on another occasion the Public Service

⁹⁰ *East Boston Petition*, 9th Ann. Rep. Mass. G. & E. L. C. 9-10 (1893); *Worcester Petition*, 10th Ann. Rep. Mass. G. & E. L. C. 31 (1894); *Haverhill Petition*, 16th Ann. Rep. Mass. G. & E. L. C. 9-11 (1900); *Charlestown Petition*, 21st Ann. Rep. Mass. G. & E. L. C. 17-18 (1905); *Federated Civic Clubs v. Springfield St. Ry. Co.*, P. U. R. 1925A, 127, 131-132 (1924). See also Ann. Rep. Mass. Department of Public Utilities (Nov. 30, 1926) 10-11; quoted *supra*, p. 128, n. 80.

⁹¹ *Worcester Petition*, 10th Ann. Rep. Mass. G. & E. L. C. 31 *et seq.* (1894). In the course of its decision, the board remarked:

"A comprehensive plan of reconstruction and improvement was begun and has been steadily pursued, with the result that the cost of manufacturing gas has been appreciably reduced, at the same time that the quality of the light and of general service has been very much advanced. This work has called for an extraordinary outlay, more than \$350,000 having been already expended. Most of this has been paid out of income, partly through a reduction in the rate of dividend, and the remainder from loans, which now somewhat exceed \$100,000.

"Provisions for all this must always be made either out of income or from new capital. In this case the Board is satisfied that it will serve the public interest best to avoid an issue of new stock. As has been stated by the Board in a former case, extraordinary demands for extensions may perhaps be met by the issue of new capital, but ordinary demands, which a progressive management desires and is bound to meet, may fairly be provided for out of income when the price of gas is not so high as to be burdensome. This is a course which has been pursued for a long term of years by the best managed companies in this State—by those in which the prices to-day are the lowest—and has probably contributed more than any other single factor to make those low prices a possibility."

Commission allowed that an issue of securities was reasonably necessary to fund the cost of additions and betterments in so far as that cost had been met from borrowed funds, but not in so far as it had been met out of surplus.⁹² The commissions have always recognized that the profit and reinvested earnings were undoubtedly the legal property of the stockholders, that all the profits could have been distributed as dividends when earned and that the company could at any time distribute this surplus as a cash dividend.⁹³ They have, nevertheless, consistently refused to permit the capitalization of reinvested surplus,⁹⁴ apparently on the ground that to do so would be to place reinvested earnings on a par with the money actually invested by the stockholders.⁹⁵ The regulatory boards have consistently maintained that the consumers have an interest or equity in the property created out of surplus,⁹⁶ and have repeatedly referred to reinvested earnings as "contributions of the consuming public" and to such property as having been "developed at the expense of the public."⁹⁷ The commissions, in their discussions of reinvested earnings, have frequently pointed out the advantage which accrues to the public from a large reinvested surplus, since, it is said, the public has the service from this property without the necessity of paying rates sufficient to allow

⁹² *Re Highland Tel Co.*, 5th Ann. Rep. Mass. P. S. C. 304, 305, P. U. R. 1917F, 853 (1917).

The commission stated that although it had paid no dividends recently and had been in existence only ten years, the company held notes and accounts receivable sufficient to pay a dividend of nearly 80 per cent upon the par value of the outstanding stock.

⁹³ *East Boston Petition*, 9th Ann. Rep. Mass. G. & E. L. C. 9-10 (1893); *Haverhill Petition*, 16th Ann. Rep. Mass. G. & E. L. C. 9, 10-11 (1900). See also the remarks of the Supreme Judicial Court in *Fall River Gas Works v. Gas and Electric Light Commissioners*, 214 Mass. 529, 538-539 (1913).

⁹⁴ A slight exception to this generalization would have been made if House Document 170 of 1928 had become a law. This measure will be discussed in connection with the final chapter. See also House Document 169 of 1928.

⁹⁵ For a discussion of the policy of the Massachusetts regulatory bodies in the matter of surplus with respect to security issues, see *supra*, p. 23.

⁹⁶ *Haverhill Petition*, 16th Ann. Rep. Mass. G. & E. L. C. 9, 10-11 (1900); *Beverly Petition*, 26th Ann. Rep. Mass. G. & E. L. C. 15, 18 (1910).

⁹⁷ *East Boston Petition*, 9th Ann. Rep. Mass. G. & E. L. C. 9, 11 (1893); *Re United Electric Light Co.*, 33d Ann. Rep. Mass. G. & E. L. C. 37, 41, P. U. R. 1917E, 868, 872 (1917); *Re Worcester Electric Light Co.*, P. U. R. 1927C, 705, 708 (1927). See also Mass. House Document 1150 of 1927.

a dividend upon such property.⁹⁸ While reinvested earnings have been held to be no part of the investment,⁹⁹ the regulatory authorities have said that such a policy, reacting as it does to the public benefit, justifies a higher rate of return than would otherwise be permitted.¹⁰⁰

To regard reinvested earnings as contributions of the public, or the property paid for by reinvested earnings as developed at the expense of the public, seems obviously to be fallacious. The public pays in rates for a service received. The earnings are then both legally and equitably the property of the company to do with as

⁹⁸ The statement in the East Boston Petition in 1893 is typical of the attitude of the Board of Gas and Electric Light Commissioners throughout its existence:

"It has been the policy of the company's management throughout its history to refrain from dividing among the stockholders the entire profits, as was undoubtedly their legal right, and to regularly lay aside a portion of them with the special view of creating this surplus; this policy, we believe, should be commended and encouraged. . . . So much of this surplus as is invested in plant and equipment gives strength to the corporation and aids in maintaining a low price since the facilities of a company are increased thereby without a corresponding increase of capital demanding dividends. . . .

"It is possible that through improvements in the plant some slight reduction in the cost of gas may be made, but the grounds for any considerable reduction in price must rest in a measure upon what is a fair and proper treatment of this surplus. In this consideration it becomes an important and difficult question to determine the proper use to which these investments should be put, to discover what are the equitable interests of the stockholders and the public in them, and to determine how far and in what way the consumers may properly reap advantages from such accumulation. . . . If the affairs of the corporation were to be wound up by proceedings for dissolution, this sum would unquestionably belong and be distributed ratably to the shareholders. They have to-day an undoubted legal right to convert these securities into cash and to divide the proceeds in the same manner as they would distribute any other portion of their profits. Such a course, however, would unquestionably be against the interests of the corporation and would probably prove fatal to its prosperity. . . .

"This surplus must, we believe, be regarded as the combined result of a wise corporate management and the contributions on the part of the public. It would seem that the company is under obligation to so use a surplus of this character that substantial advantages may accrue from it to the public, and such a course will bring added strength to the corporation itself." 9th Ann. Rep. Mass. G. & E. L. C. 9-11 (1893).

⁹⁹ "Additions and betterments paid for out of earnings offset depreciation and protect investment, but form no part of it." *Bay State Rate Case*, 4th Ann. Rep. Mass. P. S. C. 3, 36, P. U. R. 1916F, 221, 258 (1916).

¹⁰⁰ *Haverhill Gas Light Co.*, 28th Ann. Rep. Mass. G. & E. L. C. 41, 58 (1912).

they please. If the earnings are distributed as dividends to the investors, the rate-paying public clearly has no further interest in, or control over, them. Similarly if the earnings be put back into the property in the form of additions and betterments, the regulatory commissions cannot logically maintain that the public has an interest in such property any more than in the original property paid for from the sale of securities. The Supreme Judicial Court, in *Fall River Gas Works v. Board of Gas and Electric Light Commissioners*, expressed definitely its disapproval of the idea that the public retained any interest or equity in funds received by a utility from its rates:

When the corporation has performed all its duties, and by its fortunate situation, good management, or any lawful conduct has remaining a surplus of earnings, it has the right to distribute this surplus among its stockholders in dividends. As between the public and the corporation, the earnings belong to the corporation. In performing its full duty to the public and others it has done what it was chartered to do, and is entitled to the profits of the business for which it was chartered. . . . The relations between a public service corporation and the public to serve whom it was chartered are not those of a partnership, but rather those of independent contracting parties.¹⁰¹

¹⁰¹ 214 Mass. 529, 538-539 (1913). This case dealt with the right of a public service company to issue securities to pay for additions and betterments, and did not consider directly the question of the utility's right to earn a return upon reinvested earnings. In addition to paying regular dividends at the rate of 10 per cent prior to 1908 and 12 per cent thereafter, the company had declared extra dividends of 20 per cent in 1907 and of 15 per cent in 1910. The company asked for an issue of additional stock to pay for obligations incurred for construction and for future additions. Upon investigation, the Board found that the obligations incurred for this construction were within about \$40,000 of the amounts paid in extra dividends and concluded that the payments were in the nature of a stock dividend, and so refused to authorize the proposed issue. The Supreme Judicial Court reversed the board's decision, stating that the company had the right to capitalize the cost of all additions to fixed capital regardless of the amount of the company's earnings or surplus.

The United States Supreme Court, however, has held many times that a utility owns the property constructed out of surplus earnings and is entitled to a fair return upon such property equally as much as upon property furnished by the investors directly. Thus in *Board of Public Utility Commissioners v. New York Telephone Company*, 271 U. S. 23 (1926), the Supreme Court said, at page 31:

"Constitutional protection against confiscation does not depend on the source of the money used to purchase the property. It is enough that it is used to render the service."

The case of the Springfield Street Railway Company, decided September 19, 1924, illustrates the inequity and unfairness to the stockholders in refusing to include property paid for from earnings in the rate base. According to the commission's statement, this company was unable to raise the capital required for additions and improvements, and so was compelled to reinvest all its earnings during the war period. During this time the stockholders received nothing in dividends. Accordingly it would seem to be perfectly obvious that in this particular instance the reinvested earnings could not be considered as "contributions on the part of the public." In foregoing their dividends, the stockholders had sacrificed as much as though they had paid an equivalent amount in cash into the corporate treasury. In this case, at least, justice and equity would seem to have demanded that these reinvested earnings be considered a part of the stockholders' investment. But the commission stated that this policy of reinvesting earnings "results in the public not being called upon to pay a return upon property employed in its service to the amount of the surplus."¹⁰² This instance is typical of the failure of the Massachusetts commissions to make any distinction between the reinvestment of earnings and the reinvestment of excessive earnings. Indeed since no finding has ever been made as to the value of any Massachusetts utility's

¹⁰² "It was suggested by the petitioners that as it appeared from the balance sheet of the company that it had a surplus of \$677,637.20 that the company was not in need of the additional revenue claimed by it to meet its requirements. This surplus—if, indeed it is an actual surplus rather than a book surplus—is not a cash surplus. It simply indicates that earnings to the extent of the surplus have been applied to the making of additions and improvements to the company's property. The company states that the surplus has arisen largely from the fact that it has been unable during the years of the war and since to raise capital for additions and betterments and has thus been obliged to make them out of earnings. In any event the public does not suffer from this transaction, as it is obvious that the amount of earnings used to create a surplus would not have been sufficient to have paid more than a reasonable dividend in the years during which the company paid none, and it now results in the public not being called upon to pay a return upon property employed in its service to the amount of the surplus." *Federated Civic Clubs v. Springfield St. Ry. Co.*, P. U. R. 1925A, 127, 131-132 (1924). The commission found ample justification in this case for permitting the increase in rates requested by the company, so this pronouncement must be considered as dictum. It is significant, however, as an indication of the attitude of the present commission toward the claim that reinvested earnings should be included in the rate base.

property, it would be impossible to say what earnings could fairly have been considered as excessive. The assumption seems to have been that any earnings not distributed in dividends were surplus earnings and to be treated as excessive.¹⁰³ The question of the legal and economic validity of the treatment of reinvested surplus in Massachusetts is reserved for subsequent consideration.¹⁰⁴

On occasions when a company had followed the policy of distributing all its profits in dividends, and had capitalized all additions and improvements, the Board of Gas and Electric Light Commissioners held that such company deserved less favorable treatment, and so reduced its rates on this ground.¹⁰⁵ The members of the present Department of Public Utilities have apparently adopted a similar attitude of regarding it as a duty of a utility to reinvest a part of its earnings without expecting to be allowed to earn a return thereon.

With regard to property not used and useful, the Massachusetts commissions have, in general, accorded the utilities very liberal treatment. The utilities have usually been permitted to amortize abandoned property over a period of years.¹⁰⁶ In the Marlborough Electric Company case, the Board of Gas and Electric Light Commissioners said:

But it [the city] also claimed that no allowance should be made for property which has been superseded by a permanent arrangement for the purchase of electricity from outside sources, on the ground that, had there been a wise administration of the company's affairs, these losses would have been anticipated and provided for. In the absence of evidence of mismanagement or dishonesty, the Board believes that under the long-established policy of the commonwealth all the paid-up capital honestly and prudently invested should, under normal condi-

¹⁰³ In the present writer's opinion, this criticism can fairly be applied to the present Department of Public Utilities as well as to the past commissions.

¹⁰⁴ Chap. VI.

¹⁰⁵ *Charlestown Petition*, 10th Ann. Rep. Mass. G. & E. L. C. 9, 10 (1894); *Re Lawrence Gas Co.*, 31st Ann. Rep. Mass. G. & E. L. C. 27, P. U. R. 1915A, 814 (1915). See also "Recommendations for Legislation," 34th Ann. Rep. Mass. G. & E. L. C. 12 (1918).

¹⁰⁶ See *Bay State Rate Case*, 4th Ann. Rep. Mass. P. S. C. 3, 30, P. U. R. 1916F, 221, 251-252 (1916); *Re Worcester Electric Light Co.*, P. U. R. 1927D, 620, 622.

tions, be recognized in determining what is a fair rate, but it does not follow, however, that idle capital is to be on the same footing as the active.¹⁰⁷

The regulatory boards have given scant attention to the discussion of working capital. Where a company has been specifically authorized to issue securities to raise the necessary working capital, the commissions have included that sum in the investment rate base. These were the circumstances in the Bay State case in which the Public Service Commission made an allowance for working capital amounting to approximately 3 per cent of the estimated historical cost of the property.¹⁰⁸

The Massachusetts commissions have insisted that a utility claiming an allowance for intangible values must substantiate its claims by producing evidence of an investment therefor.¹⁰⁹ They have consistently held that franchises should be excluded from the rate base. It has also been denied that going concern value should form a part of the property on which a reasonable return should be based.¹¹⁰

In the treatment of accrued depreciation, the Massachusetts commissions have been very liberal toward the utilities. In the Blue Hill case, the Public Service Commission held that in the regulation of rates on the basis of prudent investment it was not proper to deduct accrued depreciation,—unless justified by the particular circumstances of a case.¹¹¹ This ruling was followed by the commission in the subsequent cases that came before it in which it was held that, in the absence of mismanagement or the payment of excessive dividends, the investment would not be reduced by the deduction of the accrued depreciation.¹¹² Even where dividends had

¹⁰⁷ 31st Ann. Rep. Mass. G. & E. L. C. 38, 43-44, P. U. R. 1915C, 665, 671 (1915).

¹⁰⁸ 4th Ann. Rep. Mass. P. S. C. 3, 26-27, P. U. R. 1916F, 221, 248-249 (1916).

¹⁰⁹ *Bay State Rate Case*, 4th Ann. Rep. Mass. P. S. C. 3, 28, P. U. R. 1916F, 221, 250 (1916).

¹¹⁰ *Haverhill Gas Light Co.*, 28th Ann. Rep. Mass. G. & E. L. C. 41, 50 (1912).

¹¹¹ 3d Ann. Rep. Mass. P. S. C. 52, 75-76, P. U. R. 1915E, 370, 397-399 (1915).

¹¹² Typical of the attitude of the Public Service Commission is the following:

been paid, so long as they were not greater than the so-called "investment rate" on money, no deduction was made for depreciation.¹¹³ In one case, the Public Service Commission held that the payment of dividends at times practically at the expense of property without adequate provision for depreciation merely offset any claim on the part of a utility for a higher than normal return.¹¹⁴ Such decisions are open to criticism on the ground that they condoned what would appear clearly to be mismanagement on the part of the utilities' executives.

The Massachusetts commissions have been careful to point out that where the presence of uncared-for depreciation was due to mismanagement, a part or all of the accrued depreciation should be deducted from investment to determine the prudent investment upon which the stockholders should be entitled to earn a return.¹¹⁵ In the Bay State Street Railway case, the Public Service Commission found that the presence of uncared-for depreciation was due to mismanagement:

If neglect had been confined merely to incomplete depreciation and if existing property had been maintained in suitable condition for effi-

"As the failure of the Norfolk & Bristol Company to make adequate provision for depreciation (hereinafter considered) does not appear upon all the evidence to be due to the payment of unwarranted dividends or to be otherwise attributable to mismanagement, in determining the revenues to which it is entitled, allowance should be made, in accordance with the principle set forth in the Blue Hill case, for an amount equal to a fair return upon the investment of \$400,000 without deducting the accrued depreciation" *Norfolk & Bristol Rate Case*, 3d Ann. Rep. Mass. P. S. C. 112, 122, P. U. R. 1915E, 411-424 (1915). See also *New Bedford & Onset Rate Case*, 3d Ann. Rep. Mass. P. S. C. 89, 102, 109, P. U. R. 1915F, 264, 279, 287 (1915).

¹¹³ "The general rule followed by the Commission has been to make no deduction for accrued depreciation, in fixing the basis for a return, unless failure to provide for it has been due to the payment of unwarranted dividends, or some other form of mismanagement; and the expression 'unwarranted' has been interpreted to mean dividends greater than what has been termed an 'investment rate on money.'" *Re Springfield St. Ry. Co.*, 6th Ann. Rep. Mass. P. S. C. 211, 240, P. U. R. 1918C, 515, 547 (1918).

¹¹⁴ *Re Concord, M. & H. St. Ry. Co.*, 5th Ann. Rep. Mass. P. S. C. 64, 71, P. U. R. 1917E, 59, 68 (1917). Quoted *supra*, p. 109, n. 14.

¹¹⁵ *Blue Hill Rate Case*, 3d Ann. Rep. Mass. P. S. C. 52, 75-76, P. U. R. 1915E, 379, 398 (1915); *Marlborough Electric Petition*, 31st Ann. Rep. Mass. G. & E. L. C. 38, 44, P. U. R. 1915C, 665, 671 (1915).

cient, safe and economic operation, we should be disinclined, notwithstanding the payment of dividends, to hold that the loss was caused by mismanagement which must be charged against the stockholders. But where, as in this case, a company has neglected, not only incomplete but complete depreciation and has failed to replace property which is obsolete, inadequate or worn-out; and where the payment of dividends has been continual, a different state of affairs exists.

Upon consideration, the Commission is of the opinion, under all the circumstances of the case, that the failure to make due provision for the complete depreciation of a portion of the property was mismanagement which ought to be charged against the stockholders legally responsible therefore.¹¹⁶

But in this instance, the commission decided that an immediate rehabilitation of the property was in the interest of both consumers and the stockholders, since it would result in increased revenue, decreased operating expenses and improved service; and instead of reducing the rate base by deducting the depreciation from the investment, the commission, therefore, ordered the company to restore the value of its property by taking care of current repairs and replacements out of earnings before paying dividends.¹¹⁷

The regulatory boards of Massachusetts have, in general, favored the accumulation of a reserve for depreciation. Current depreciation has been recognized as a proper charge against current earnings, and it has been considered proper to accumulate a reserve in order that future patrons should not be required to provide the funds to replace property worn out in past service.¹¹⁸ The reinvestment of the depreciation reserves in additions and betterments has been the approved practice. The utilities have been encouraged to accumulate large reserves and to reinvest them in the property for the same reason that the reinvestment of surplus has been encouraged—in order to keep at a minimum the amount of the investment upon which dividends must be paid. Typical of the attitude of the Massachusetts authorities is the following statement by the present Department of Public Utilities:

¹¹⁶ 4th Ann. Rep. Mass. P. S. C. 3, 49, P. U. R. 1916F, 221, 272-273 (1916).

¹¹⁷ 4th Ann. Rep. Mass. P. S. C. 3, 50, P. U. R. 1916F, 221, 273-274 (1916).

¹¹⁸ 4th Ann. Rep. Mass. P. S. C. 3, 54-55, P. U. R. 1916F, 221, 278 (1916).

The policy of the company in relation to its depreciation reserve has tended, in our opinion, to result in a high investment compared with the amount of electricity sold. Depreciation reserves are ordinarily invested in plant. Such reserve relieves the company of borrowing money or issuing stock to acquire the plant represented by the reserve. A reasonably strong reserve, if the company does not attempt to pay dividends based thereon, inures to the advantage of the company and its customers by reducing the amount of interest or dividends that the company is obliged to pay to secure capital to maintain its financial integrity.¹¹⁹

The Massachusetts commissions have not, however, considered that the absence of a definite reserve indicated mismanagement. They have held that accrued depreciation was offset by additions and betterments charged to earnings,¹²⁰ by appreciation in value,¹²¹ by a low price paid for purchased property,¹²² and by premiums realized on the sale of bonds.¹²³

The Massachusetts regulatory bodies have had little to say about the propriety of including non-physical elements of value in the rate base. One of the most serious charges they have raised against the reproduction cost method of arriving at a rate base has been that it involves the allowance for groups of items such as overhead costs which they label as "conjectural." In the Bay State Street Railway case, the Public Service Commission made an allowance for overhead charges of about 8 per cent in arriving at an estimate of the historical cost of the property.¹²⁴ The commissions have followed the logic of the prudent investment base in refusing to include any appreciation in the value of lands or equipment and

¹¹⁹ *Consumers v. Edison E. Illuminating Co.*, P. U. R. 1926A, 525, 529 (1925).

¹²⁰ *Norfolk & Bristol Rate Case*, 3d Ann. Rep. Mass. P. S. C. 112, 131, P. U. R. 1915F, 411, 433-434 (1915); *Re Boston & A. R. Co.*, P. U. R. 1925B, 669, 673 (1924).

¹²¹ *Blue Hill Rate Case*, 3d Ann. Rep. Mass. P. S. C. 52, 75, P. U. R. 1915E, 370, 397-398 (1915).

¹²² *New Bedford & Onset Rate Case*, 3d Ann. Rep. Mass. P. S. C. 89, 101-102, P. U. R. 1915F, 264, 278-279 (1915).

¹²³ *Re Boston & A. R. Co.*, P. U. R. 1925B, 669, 676 (1924).

¹²⁴ 4th Ann. Rep. Mass. P. S. C. 3, 23-26, P. U. R. 1916F, 221, 245-248 (1916).

structures as part of the base upon which a utility should be permitted to earn a return.¹²⁵

The chapter has thus far been concerned with a description and analysis of some of the details of rate regulation as developed and administered by the Massachusetts commissions. The discussion of these matters—the reasonableness of rates, the basis upon which a utility should be permitted to earn a return, the importance of capitalization in the Massachusetts scheme, the measures of the proper rate base that have been suggested, the treatment accorded to certain elements of value, etc.—has been given considerable attention because these matters were considered significant in aiding one to understand the point of view from which the regulatory boards have approached their problems. But in this field as in others, there is always the danger of losing sight of the forest in studying the trees. The rest of this chapter will be devoted chiefly to a consideration of just how the Massachusetts boards have arrived at the return which they considered a utility entitled to receive. Thus far the statements of the commissions have been accepted without question at their face value. Now an attempt will be made to go beyond the statements of the regulatory bodies to discover what they have actually done.

Failure of the Massachusetts Commission To Make Definite Findings as to a Rate Base

One of the chief claims advanced by the advocates of the prudent investment rate base in contrast to present fair value has been the greater certainty and definiteness of the former. In spite of this, a close analysis of the decisions reveals that, with a few notable exceptions, the Massachusetts commissions have failed to make any definite finding as to the rate base upon which the particular utilities involved were entitled to earn a fair return.¹²⁶ In the Blue Hill Street Railway case, one of the most definite and

¹²⁵ *Blue Hill Rate Case*, 3d Ann. Rep. Mass. P. S. C. 52, 75, P. U. R. 1915E, 370, 398 (1915).

¹²⁶ In the Bay State Street Railway case, the Public Service Commission did state a definite figure of \$39,104,340 as the basis upon which the company was entitled to earn. 4th Ann. Rep. Mass. P. S. C. 3, 52, P. U. R. 1916F, 221, 275 (1916).

clear-cut of the Public Service Commission's decisions, there was no definite finding made as to the rate base or prudent investment. It was stated that, with a rate base of \$500,000, the necessity for an increased return could be shown, but the commission emphasized the fact that it was not deciding that \$500,000 was the proper base, but simply that it was not less than that.¹²⁷ In the cases of the New Bedford and Onset Street Railway¹²⁸ and the Massachusetts Northeastern Street Railway,¹²⁹ the commission failed to make definite findings as to a rate base. In practically all of the street railway cases in 1917 and 1918, the Public Service Commission granted an increase in rates without attempting to ascertain specifically the appropriate rate base.¹³⁰

The Board of Gas and Electric Light Commissioners likewise failed to make definite findings as to the rate base in the cases that came before it. Their decisions contained frequent statements that an appraisal of the company's property had not been considered necessary.¹³¹ The decision of the board in the Northampton Gas Light Company case is typical of the indefiniteness of the board's findings in rate cases. The company had outstanding capital stock to the amount of \$120,000; notes, \$59,500; and other debts, \$12,944. The premiums paid in to the corporate treasury amounted to \$16,400. The total amount invested by the security holders was \$195,900. Most of the extensions and improvements had been made from earnings. The city's valuation placed the reproduction cost

¹²⁷ "The Commission must not be understood as deciding or even intimating that \$500,000 is the amount upon which a fair return should be based. Our finding is merely that the amount is certainly not less than that." *Blue Hill Rate Case*, 3d Ann. Rep. Mass. P. S. C. 52, 78-79, P. U. R. 1915E, 370, 401 (1915).

¹²⁸ 3d Ann. Rep. Mass. P. S. C. 89, 100; P. U. R. 1915F, 264, 277-278 (1915).

¹²⁹ 4th Ann. Rep. Mass. P. S. C. 122, 126-127; P. U. R. 1917A, 331, 338 (1916).

¹³⁰ *Boston & Worcester Rate Case*, 5th Ann. Rep. Mass. P. S. C. 47, P. U. R. 1917F, 833 (1917); *Holyoke Rate Case*, 5th Ann. Rep. Mass. P. S. C. 76, P. U. R. 1918B, 212 (1917); *Springfield Rate Case*, 6th Ann. Rep. Mass. P. S. C. 211, P. U. R. 1918C, 515 (1918); *Worcester Consolidated Fares*, 7th Ann. Rep. Mass. P. S. C. 37 (1919).

¹³¹ *Re Edison E. Illuminating Co.*, 24th Ann. Rep. Mass. G. & E. L. C. 20 (1908); *Cambridge Petition*, 30th Ann. Rep. Mass. G. & E. L. C. 36 (1914); *Northampton Gas Petition*, 31st Ann. Rep. Mass. G. & E. L. C. 19, P. U. R. 1915A, 618 (1915).

at \$220,964 and present value at \$179,906. The company claimed a replacement value of \$354,777 and a present value of \$311,149. Without even suggesting what it considered to be the proper rate base, the board ordered a reduction in the price of gas from \$1.10 to \$1.00. The following quotations illustrate how impossible it is to discover the basis upon which the board decided that the rate of \$1.00 was fair and reasonable:

It is true that courts have decided rate cases in which little or no evidence was offered save with respect to the values of the properties involved, based upon their reproductive costs. But they have not said that this is the only test, or even that the trial court or the public board, whose action is questioned, must reach and state a definite finding as to value. Other elements have been expressly enumerated as "matters of consideration . . . to be given such weight as may be just and right in each case."

. . . In view of all the circumstances of this case, and of what has been said, not only with respect to the question of return, but of reasonable operating expenses, the Board is of the opinion that the price hereinafter recommended is fair and reasonable, and will yield enough to provide for all proper operating expenses, including depreciation and a fair return upon the value of the property which the company is actively and necessarily employing for the public convenience.¹³²

The Board of Gas and Electric Light Commissioners throughout its existence was even more vague and indefinite in its rate decisions than was the Public Service Commission.¹³³

The present Department of Public Utilities, like the two earlier commissions which it succeeded, has regularly failed to make any definite finding of the accepted rate base in deciding what should be considered fair and reasonable rates. Thus, for example, in the cases of the Springfield Street Railway Company¹³⁴ and the Edison

¹³² *Northampton Gas Petition*, 31st Ann. Rep. Mass. G. & E. L. C. 19, 26-27, P. U. R. 1915A, 618, 627-628 (1915).

¹³³ For other cases in which the Board of Gas and Electric Light Commissioners failed to make any finding as to the proper rate base see *Salem Petition*, 24th Ann. Rep. Mass. G. & E. L. C. 15 (1908); *Re Haverhill Gas Light Co.*, 28th Ann. Rep. Mass. G. & E. L. C. 41 (Quoted in part, *supra*, p. 110, n. 19) (1912); *Re Scituate Water Co.*, 35th Ann. Rep. Mass. G. & E. L. C. 25, P. U. R. 1919D, 844 (1919).

¹³⁴ *Federated Civic Clubs v. Springfield St. Ry Co.*, P. U. R. 1925A, 127 (1924).

Electric Illuminating Company of Boston,¹³⁵ the commission did not even enter into any discussion as to the basis upon which the particular company was entitled to earn.

In the New England Telephone Company case, the department restated the so-called Massachusetts rule, and mentioned the federal rule of present fair value; but it failed to make any finding as to the present fair value or the honest and prudent investment, and it made no specific determination as to the rate base. In this instance, the company was permitted to increase its rates. In the course of its decision, the commission stated:

. . . Viewed from either the Federal or the so-called Massachusetts theory, an amount of revenue sufficient to meet the operating expenses and fixed charges of the company provide a reasonable reserve for depreciation and insure the payment of reasonable dividends that will readily attract new capital necessary for the proper development of the company, in our judgment will yield a fair return either upon the fair value of the property devoted to the public welfare or upon the investment of the stockholders.¹³⁶

In the absence of a definite finding as to a just and reasonable rate base, however, it is a little difficult to see how either the commission or the public can have any confidence that the rate established is a fair rate. In the absence of complaint on the part of the utility, it may be assumed that the rate is not such as to prevent the company from earning something approaching a fair return; but there can be no assurance that the rate is not more than is needed to provide a fair return upon the value of the property used in the public service.

A reading of some decisions gives the impression that the commission starts with a preconceived notion as to what rate is "just and reasonable." A consideration of the utility's annual output enables the commission to arrive at an estimate of the annual gross revenue which the tentative rate may reasonably be expected to yield. From this gross revenue is deducted the estimated operating expenses (based largely upon actual past records) and a liberal allowance for depreciation, leaving a figure representing the net

¹³⁵ *Consumers v. Edison E. Illuminating Co.*, P. U. R. 1926A, 525 (1925).

¹³⁶ *Re New Eng. Tel. & Tel. Co.*, P. U. R. 1925E, 739, 745 (1925).

revenue or profit anticipated from the proposed rate. The net profit is then capitalized at some "fair rate" to give the rate base upon which the utility is theoretically entitled to earn a return. In other words, one receives the impression that the procedure has been from the fair rate to the rate base, instead of vice versa. The Worcester Electric Light Company case, decided June 3, 1927, is a case in point.

The report of the Department of Public Utilities in the Worcester Electric Light Company case¹³⁷ yields the following figures:

Capital stock	\$ 2,400,000
Paid-in premiums	1,658,232
Total investment by stockholders	4,058,232
Plant investment value ¹³⁸	6,605,450
Actual book cost—approximately ¹³⁹	9,000,000
Valuation on the basis of cost	12,000,000
Reproduction cost less depreciation ¹⁴⁰	17,837,965

The last three figures were submitted by the company. The company had a depreciation reserve of \$2,016,005.33 and a surplus of \$15,336,174.55.¹⁴¹ The text of the decision was concerned chiefly with a discussion of the earnings under the existing rate of 7 cents a kilowatt hour and under the proposed rate of 5 cents. The commission concluded that under the proposed maximum rate of 5 cents the net revenue would be in excess of \$600,000 a year, and suggested \$10,000,000 as the rate base. The following excerpts from the opinion may serve to indicate the commission's procedure:

. . . This amount deducted from \$940,000, which would have been approximately the net revenue for the year 1926 if no remission in the bills for October, 1926, had been made, would leave a total net income available for dividends of \$584,888, or approximately 6 per cent on \$10,000,000.¹⁴² We think it is to be expected, as experience has dem-

¹³⁷ P. U. R. 1927C, 705 (1927).

¹³⁸ According to sworn return made to the department for the year 1926. *Ibid.*, p. 717.

¹³⁹ Built up largely out of earnings. *Ibid.*
¹⁴⁰ Included also working capital, cost of financing, water supply rights and privileges, and going value. *Ibid.*

¹⁴¹ Separate opinion of Commissioner Hardy. *Ibid.*, p. 722.

¹⁴² This is the first mention of \$10,000,000. There is no explanation of how this figure is derived.

onstrated in the past, that a reduction of rates will effect an increased use for domestic purposes, resulting in a larger business in the domestic lighting class without corresponding increase in expense. We think it fair to assume that under a 5 cent maximum rate the revenue that will be derived by the company will be in excess of \$600,000.

. . . Very recently bonds of a railroad operating wholly within Massachusetts were issued and sold at an interest rate of $4\frac{3}{4}$ per cent and another New England railroad issued and disposed of its bonds at a $4\frac{1}{2}$ per cent interest rate. The stock of the Worcester Electric Light Company is as attractive as that of any company in the Commonwealth, and in our judgment a return of 5 per cent upon the *assumed value*¹⁴³ of \$10,000,000 would maintain the stock at a price which would fairly reflect such a valuation.

So far as it may be material, we find that the fair value of the property employed by the company in its business for rate-making purposes, based upon the principles enunciated by the Supreme Court of the United States in *McCardle et al v. Indianapolis Water Co.* (decided Nov. 22, 1926) and in other recent decisions of that court, does not exceed \$10,000,000.¹⁴⁴

The conclusion seems inevitable that in this case the commission reasoned from a preconceived reasonable rate to an "assumed" rate base. No explanation was given as to the source from which the \$10,000,000 valuation was derived, but the implication that it was secured simply by capitalizing an assumed net income of \$600,000 at the rate of 6 per cent is unavoidable. There is no discernible connection between the \$10,000,000 and the figures given for the investment and present value. There can be no doubt that the commissioners did not consider the fair value as at all "material" in reaching a conclusion as to the proper rate. In the absence of a definite finding as to the value or rate base, derived from a reasonable judgment of the facts in the case, neither the public nor the company can have any assurance that the established rate is fair and reasonable.

In the *Cambridge Electric Light case*,¹⁴⁵ decided January 31, 1928, the Department of Public Utilities was only slightly more specific than in the *Worcester case*. From the decision in this case,

¹⁴³ Italics supplied.

¹⁴⁴ P. U. R. 1927C, 705, 713-715 (1927).

¹⁴⁵ *Ibid.*, 1928C, 24 (1928).

which was only ten pages in length, the following figures have been taken:

Capital stock	\$1,560,000
Paid-in premiums	778,000
Total investment by stockholders	2,338,000
Fair value or rate base	5,500,000
Book cost ¹⁴⁶	4,048,608
Reproduction cost less depreciation	8,000,000
Assessed value, 1926	2,605,000

Again there was absolutely no explanation as to how the figure for the rate base was derived, nor of the facts upon which the commission based its judgment. It was not quite so obvious in this case, as it was in the Worcester case, that the \$5,500,000 was secured simply by capitalizing the prospective net income of \$345,000 at 6 per cent, but the proposed rate of 5½ cents was discussed before there was any mention of a rate base. The wording of the decision itself would seem to indicate that little or no consideration was given to the appropriate rate base, either the prudent investment or the fair value, in fixing upon 5½ cents as the proper maximum rate.

In regard to the fair value, the commission said:

*So far as it may be material, we find that the fair value for rate-making purposes of all the property employed by the company in its business, based upon the principles enunciated by the Supreme Court of the United States in McCardle et al vs. Indianapolis Water Company, 272 U. S. 400, and in other recent decisions of that court, does not exceed \$5,500,000, and that the fair value of that portion of its property devoted to its domestic and commercial business, based upon these same principles does not exceed \$2,500,000.*¹⁴⁷

In both the Cambridge and Worcester cases, the department stated that the finding as to fair value for rate-making had been based upon the principles enunciated by the Supreme Court of the United States in *McCardle vs. Indianapolis Water Company*. Inasmuch as the commission made no attempt to take an inventory of the property and appraise it at present prices, the figures

¹⁴⁶ Company's claims.

¹⁴⁷ P. U. R. 1928C, 24, 26 (1928). Italics supplied.

labeled "fair value" could hardly be said to have been based upon the principles stated by the Supreme Court in *McCardle vs. Indianapolis Water Company*. Even assuming the figures to represent the just and reasonable value of the property employed in the service of the public, it is fairly apparent that the established rate was not based upon this finding as to value.

In order to forestall a charge of having fixed a rate so low as to be confiscatory, the commission carefully pointed out in each case that the maximum rate for domestic and commercial lighting alone was regulated. In each case, also, the commission stated that the revenue received from the domestic and commercial lighting business was more than sufficient to pay a fair return upon the value of that portion of the property devoted to domestic and commercial lighting.¹¹⁸ The department took the position that the companies were estopped from maintaining that the rates fixed were confiscatory because they voluntarily sold a large part of their current to power consumers at the rates lower than the maximum rate fixed by the commission. So far as can be ascertained from the commission's reports little, if any, importance was attached to the fact that the companies were compelled by competitive forces to fix the power rates at a low figure if they were to secure the business. It can hardly be said that the utilities fixed rates "voluntarily" at less than the maximum rate when they were presumably compelled to do so to avoid having idle plant capacity.¹¹⁹ The rates established by utilities applicable to power consumers furnishes a poor criterion of what rates should properly be applied to the domestic and commercial lighting part of the business.

The reports of the department in the Worcester and Cam-

¹¹⁸ P. U. R. 1927C, 705, 714 (1927). In the Cambridge case, the commission gave a separate figure of \$2,500,000 to represent the value of that portion of the property devoted to the domestic and commercial lighting business. *Ibid.*, 1928C, 24, 27 (1928).

¹¹⁹ The Massachusetts commission gave no indication in its decisions that it appreciated the fact that, by securing the fuller utilization of idle plant capacity, the consumers benefited since the company's overhead charges were spread over a greater number of units and so were less per unit of service rendered. Had these companies failed to develop their power business, it is certain that the domestic and commercial lighting customers would be required to pay rates higher than those which were the object of complaint.

bridge cases gave figures of the dividends paid on the aggregate par value of the stock, and on this value plus the paid-in premiums. In the absence of a reliable finding as to the present fair value of the company's property there is no means of ascertaining by how much the dividends were excessive, or whether they were excessive at all. The dividend rate on the par value of a company's stock does not necessarily give any indication as to what price or charge for the service rendered will result in equal justice to the company and consumer.

It thus appears that the former regulatory commissions of Massachusetts and the present Department of Public Utilities have customarily made no definite finding as to the appropriate rate base upon which a utility should be permitted to earn a fair return. In spite of the popular belief to the contrary, the Massachusetts commissions have not consistently or rigidly adhered to prudent investment as the proper measure of the rate base.¹⁵⁰

¹⁵⁰ ". . . Whatever may be the opinion of different individuals as to whether prudent investment is a proper basis or not, since the consolidation of the departments in Massachusetts in 1919 the Commission has not considered prudent investment as the Massachusetts theory. I am not at all surprised that the general public throughout the country has felt that that was the Massachusetts theory, that the Massachusetts theory on which rates were based was prudent investment. It grew up out of a decision before the consolidation a great many years ago in a street railway case where there had been a depreciation in the value of the property. The representatives of the public attempted to set up as a rate basis upon which the rates on that street railway should be figured, the reproduction cost theory, which was manifestly less than was indicated as prudent investment.

"The Commission fixed the rates—the old Public Service Commission fixed the rates on prudent investment because they felt that the stockholders had honestly and prudently invested their money in the property, and the fact that the value of that property was less than that prudent investment was of no moment. That is the origin of the so-called 'Massachusetts rule' of prudent investment, and as you can see, it arises from an entirely different conception than is usually held. In other words, the doctrine of prudent investment as the Massachusetts theory is quoted as opposed to reproduction cost theory where the reproduction cost is more than the prudent investment; whereas the only decision in Massachusetts was based on the fact that the prudent investment was more than the reproduction cost." Statement of Henry G. Wells, of the Department of Public Utilities of Massachusetts, before the National Association of Railroad and Utilities Commissioners, October 18, 1927. *Proceedings of National Association of Railroad and Utilities Commissioners* (1927), pp. 113-114.

Even in those cases in which the commissions have made definite findings as to the amount of the prudent investment in the property of a utility, there has, in all except a few cases, been no determination of a specific rate base. If there have been no determinations as to the proper rate base in the regulation of rates in Massachusetts, the question arises as to how the Massachusetts commissions have decided what return the utilities under their jurisdiction might fairly be entitled to earn.

The Method of Finding the Fair Return

The consideration of the process actually followed by the Massachusetts commission in the determination of the return to be allowed a public service company can best be introduced by quoting a statement of Mr. Henry G. Wells before the National Association of Railroad and Utilities Commissioners:

. . . we have had in Massachusetts, with our history of control over the issuance of securities, I feel, some advantage, because we have gone upon a sound economic theory and we have disregarded valuation entirely. It doesn't take us two or three years to determine a rate case; it takes us from a month to possibly two or three months. And we simply take the economic situation of the company. If their company stock is selling at about par, if they are paying dividends and the stock commands a premium on the open market, if they are setting aside adequate depreciation and a reasonable surplus, then the only fact that we have to consider in a rate case is whether the operating or maintenance charges are being increased or decreased as a result of market prices, and that is all there has been to it since 1919 until we had the Worcester Electric Light rate case. It is a perfectly businesslike proposition.¹⁵¹

When a commission fixes the rates which a utility is to be allowed to charge, it is concerned with establishing rates which will yield approximately a certain gross revenue, which it is anticipated is required to enable the utility to function efficiently. The gross revenue includes four main items; to wit, operating expenses, taxes, retirement allowances, and a fair return upon the property devoted to the public service.

The commissions usually experience little difficulty in deciding

¹⁵¹ *Proceedings of National Association of Railroad and Utilities Commissioners* (1927), p. 114.

upon the amount that should be allowed for operating expenses. In Massachusetts, the commission has usually given careful consideration to this item of operating expenses. Particularly where an advance in rates has been sought, the commission has endeavored to point out opportunities for greater efficiency in management. In some instances in the past, the regulatory boards have invaded the field of management and urged their advice against the judgment of the executives. But even when the question of inefficiency in management is present, it is not generally a controversial question, since it can be indicated specifically and a reasonably close estimate as to the possible savings can be made. It is in the consideration of the allowance requisite to cover future operating expenses that the Massachusetts commission has indicated that they make adjustments for changes in the general price level. Thus if the trend of future prices is upward, a larger allowance can be made for operating expenses in the future; while if the future trend of prices is toward lower levels, the allowance for operating expenses can be curtailed.

The question as to what allowance should be made in the gross revenue for taxes usually presents little or no difficulty. The amount of the taxes is definite and can be found in the public records. Taxes are relatively stable from year to year, and since changes in taxes require legislative enactment, future taxes are easily predictable. So far as taxes are concerned the commission is usually required to make a simple finding of fact.¹⁵²

The main item in the retirement allowances is for depreciation. The Massachusetts commissions have always recognized the necessity of including current depreciation as an annual charge and have permitted the companies under its jurisdiction to provide generously for depreciation and kindred allowances. Because of the fair and lenient attitude of the Massachusetts boards, the provision for depreciation has seldom been a matter of dispute between the commission and the utility. Where it has been necessary to stress the allowance for depreciation, it has usually been because the company has failed to make adequate provision, not be-

¹⁵² The income tax does not enter into the question at this point since the income tax is levied on the net income or profit.

cause the commission has prevented the company from earning a gross revenue sufficient to cover current depreciation.

The determination as to the fair return required is the question about which center most controversies that arise in rate cases. And it is at this point that the influence of the regulation of security issues on the Massachusetts policy of rate regulation shows itself most clearly. The Massachusetts commission encourages the accumulation of a surplus by the reinvestment of earnings in extensions and improvements and hence, is usually willing to allow a company to earn a reasonable surplus. Most of the Massachusetts utilities have very little of their total capitalization in bonds; and where they have bonds outstanding, there is usually no difficulty in making a finding as to the interest charges.

The Massachusetts method of determining the fair return—most of which goes to pay dividends upon the capital stock—is unique. The Massachusetts laws require that when public service companies issue additional capital stock it must be sold at not less than par.¹⁵³ Since public utilities can not legally issue securities at less than par, and since adequate service depends upon the ability of the company to secure capital for additions and betterments on favorable terms, the Massachusetts commission directs its attention mainly to keeping the financial condition of the company such that it can raise additional capital as needed. As a large issue of stock depresses the market price, the commission, so long as the law remains unchanged, must allow a utility to pay dividends sufficient to maintain the market price at a figure considerably above par, usually 20 to 25 points above.

In deciding upon the rate of dividends necessary to maintain the market price of a utility's stock above par, the Massachusetts commission considers such matters as the yield basis upon which the stock of Massachusetts utilities sell in the open market, the interest rates carried by recent bond issues, the rate of interest paid on savings deposits, etc. For example, in the Worcester Electric Light rate case, the commission said:

A rate of approximately 6 per cent is not a low rate in Massachusetts, but, on the contrary, is a very attractive one when applied to securities of a public utility company situated as this one is, and in

¹⁵³ *Supra*, Chap. II, *passim*.

effect protected from competition by the laws of the Commonwealth. A billion and a half of dollars have been attracted into the savings institutions of the Commonwealth by a return ranging from 4 to 5 per cent. Stocks of many of our public utilities are selling at prices which yield less than 6 per cent and in some instances less than 5 per cent to the purchaser in the open market. Very recently bonds of a railroad operating wholly within Massachusetts were issued and sold at an interest rate of $4\frac{3}{4}$ per cent and another New England railroad issued and disposed of its bonds at a $4\frac{1}{2}$ per cent interest rate.¹⁵⁴

In no rate case, however, has the commission limited the return to a figure as low as 6 per cent upon the capitalization, or upon the capitalization plus paid-in premiums. The Massachusetts commissions have declared a return as just and reasonable if it enables the utility to pay dividends sufficient to make its securities an attractive investment.¹⁵⁵

In the New England Telephone & Telegraph Company case, the Massachusetts Department of Public Utilities gave concisely what it considered pertinent in determining the fair return which a utility should be allowed to earn:

Apart from the size of this case, . . . the same principles apply here as in any rate case. It presents a question in economics and, for that matter, in quite simple and fundamental economics. The people of Massachusetts want adequate telephone service. They cannot have this unless the company can raise the funds necessary for such service and its development. The company cannot do this unless it can maintain its credit. It must, in order to do this, be able to sell large quantities of shares of its stock to its stockholders or others. It cannot under the law sell its shares of stock below par. Its shares of stock will not sell in large quantities at par unless small quantities sell in the stock market somewhat above par. Hence it follows inevitably that the company must earn such an annual dividend as will maintain the price of shares of its

¹⁵⁴ *Customers v. Worcester Electric Light Co.*, P. U. R. 1927C, 705, 713-714 (1927).

¹⁵⁵ ". . . an amount of revenue sufficient to meet the operating expenses and fixed charges of the company provide a reasonable reserve for depreciation and insure the payment of reasonable dividends that will readily attract new capital necessary for the proper development of the company, in our judgment will yield a fair return either upon the fair value of the property devoted to the public welfare or upon the investment of the stockholders." *Re New Eng. Tel. & Tel. Co.*, P. U. R. 1925E, 739, 745 (1925).

stock above par in the stock market. Such a dividend demanded by economic necessity is, in substance, what courts call "a fair return."

This Commonwealth has been the pioneer in the regulation of public utilities. It has controlled the issue of securities and their price for decades and, as a consequence, has proceeded upon the theory that these securities thus issued constitute the proper base. Stated tersely, it is money honestly and prudently invested and devoted to the public service that is entitled to earn a fair return. This doctrine grew out of the general practice obtaining in Massachusetts in such matters, and in its fundamental thesis conforms to economic necessities and is based upon the actual facts, as opposed to doctrinaire theories. No evidence was presented that the company's outstanding securities do not now represent property of their face value or that the company is not entitled to earn a fair return upon its outstanding securities and the par value of its capital stock, or, to put it in practical terms, to earn enough thereon to keep the price of its stock above par.¹⁵⁶

Thus, from beginning to end, the Massachusetts practice is influenced by the necessity of maintaining the credit of the company in such condition that it can easily and readily sell additional issues of securities at or above par. The actual value of the property placed at the service of the company is given practically no weight. No attempt, other than a verbal one, is made to relate the fair return to the valuation of the company's property or even to any specific rate base. The whole process of rate regulation is done largely by rule-of-thumb methods.

¹⁵⁶ *Re New Eng. Tel. & Tel. Co.*, P. U. R. 1925E, pp. 743-744 (1925).

This statement in the New England Telephone & Telegraph Company case would seem to indicate quite definitely the continued adherence of the present commission to the prudent investment principle developed by its predecessors: and to this extent, it disagrees with the statement of Commissioner Henry G. Wells before the National Association of Railroad and Utilities Commissioners on October 18, 1927 (quoted *supra*, p. 151, n. 150). As will appear in the subsequent chapter, however, this conflict is more apparent than real: although the commission in its official reports continually reiterates its faith in the Massachusetts prudent investment rule, Mr. Wells is correct in stating that the commission does not *apply* the prudent investment doctrine in its regulation of rates.

CHAPTER V

RATE REGULATION UNDER THE FEDERAL RULE, THE INVESTMENT THEORY AND THE MASSACHUSETTS POLICY

Introduction

IT is the purpose of this chapter to present a brief comparative summary of certain aspects of rate regulation under the federal present fair value rule,¹ the prudent investment theory, and the so-called Massachusetts rule. By drawing this comparison between the Massachusetts practice and the other two theories of rate regulation, it will be possible in the final chapter to appraise the advantages and disadvantages of the policy developed in Massachusetts.

What is to be said concerning the federal rule of present fair value will be based principally upon the decisions of the Supreme Court of the United States. Mr. Justice Brandeis of the United States Supreme Court, Commissioner Eastman of the Interstate Commerce Commission, and Dr. John Bauer have been accepted as the leading exponents of the prudent investment school.² The

¹ When the courts declare that the rate base shall be the value of the utility's property, instead of the actual cost or the amount of the capital honestly and prudently invested, they do not mean exchange value—selling price—nor capitalized net earnings. As Justice Brandeis stated in the *Southwestern Bell Telephone Company* case,—“Value is a word of many meanings. That with which commissions and courts in these proceedings are concerned, in so-called confiscation cases, is a special value for rate-making purposes, not exchange value. This is illustrated by our decisions which deal with the elements to be included in fixing the rate base.” (262 U. S. 276, 310 (1922).) In referring to the rate base, the Supreme Court has, among other terms, used the following: value, valuation, fair value, present value, present fair value, real value, reasonable value, reasonable present value, fair and reasonable value, true value; and when these terms appear in the present work, they should be understood as synonymous with the rate base upon which the utility is entitled to earn a just and reasonable return.

² Some explanation may be necessary as to the reasons for confining the list of the seeming representatives of the prudent investment theory to the three

treatment of the Massachusetts practice rests upon the material that has been presented in the previous chapters.

Reasonable Rates

There is, apparently, fairly close agreement as to what is meant by reasonable rates. At the basis of all regulation of rates is the assumption that rates should be calculated on the basis of cost of service. It is well established that rates should not be set so low as not to cover this cost of the service. And it is generally assumed that the value of service sets the upper limit beyond which reasonable rates may not go. Thus far no definite or logical means have been developed for measuring value of service, so that this theoretical upper limit is of little practical aid in deciding what rates are reasonable. Accordingly, practical rate regulation has proceeded upon the ground that while the public should, at least in the majority of cases, pay the full reasonable cost of the service, including in cost a return upon invested capital, the company is not entitled to receive more than the fair cost.

Measures of the Reasonableness of Rates

There is comparatively close agreement between all regulatory schools, that reasonable rates must provide sufficient gross revenue to cover all proper operating expenses, including an allowance for retirement reserves and taxes. Included in this gross revenue there must be a sufficient net revenue to provide a fair return to the

mentioned above. Dr. Robert H. Whitten in his two-volume work on the *Valuation of Public Service Corporations* (1912, 1914) devoted considerable space to a discussion of "actual cost" as a rate base. Mr. Donald R. Richberg has proved himself an able supporter of the prudent investment idea, or at least, an able opponent of present fair value, as the basis for the regulation of rates. His articles—"A Permanent Basis for Rate Regulation," 31 *Yale Law Journal* 263 (1922); "Value by Judicial Fiat," 40 *Harvard Law Review* 567 (1927)—however, have been too general to be serviceable in the present instance. Professor James C. Bonbright, in his recent article, "The Economic Merits of Original Cost and Reproduction Cost," 41 *Harvard Law Review* 593 (1928), has given an able presentation of the case for the prudent investment theory. But he has come forward as an exponent of the investment rate base too recently, and his discussions have thus far been too philosophical and too general to permit selecting him as a typical representative of prudent investment. The three mentioned in the text have been chosen because of the greater explicitness of their presentations.

owners of the utility for the use of their property in serving the public. It is in the measurement of the reasonableness of this net return that differences between the three regulatory policies become quite noticeable.

The United States Supreme Court has established the rule that the reasonableness of rates must be measured by a comparison with the present fair value, not the cost, of the property placed at the service of the public. In the *Union Pacific Railway* case in 1894, the United States Circuit Court did not specifically name any measure of the reasonableness of rates.³ Two years later in the *San Diego Land and Town* case, the United States Circuit Court held definitely that the present value, not the original cost, was the true measure of the reasonableness of rates. On this occasion, the court said:

In the solution of that problem many considerations may enter, among them, the amount of money actually invested. But that is by no means, of itself, controlling, even where the property was at the time fairly worth what it cost. If it has since enhanced in value, those who invested their money in it, like others who invest their money in any other kind of property, are justly entitled to the increased value. If, on the other hand, the property has decreased in value, it is but right that those who invested their money in it, and took the chances of an increase in value, should bear the burden of the decrease. In my judgment, it is the actual value of the property at the time the rates are to be fixed that should form the basis upon which to compute just rates; having, at the same time, due regard to the rights of the public, and to the cost of maintenance of the plant, and its depreciation by reason of wear and tear.⁴

In 1898 the United States Supreme Court had occasion to determine the reasonableness of rates. It was in the case of *Smyth v. Ames* that the federal rule was enunciated that the fair value of the property used in the public service constituted the measure of reasonable rates. In delivering the opinion of the court, Mr. Justice Harlan stated:

³ *Ames v. Union Pacific Ry. Co.*, 64 Fed. 165 (1894).

⁴ *San Diego Land & Town Co. v. National City*, 74 Fed. 79, 83 (1896).

We hold, however, that the basis of all calculations as to the reasonableness of rates to be charged by a corporation . . . must be the fair value of the property being used by it for the convenience of the public. . . . What the company is entitled to ask is a fair return upon the value of that which it employs for the public convenience. On the other hand, what the public is entitled to demand is that no more be exacted from it for the use of a public highway than the services rendered by it are reasonably worth.⁵

This formulation of the federal rule has been reiterated in subsequent decisions of the federal courts and has been followed by most of the state regulatory commissions and courts. In the *San Diego Land and Town* case before the Supreme Court in 1899, the court restated what it had said in the previous year. In this case, the court said: "What the company is entitled to demand, in order that it may have just compensation, is a fair return upon the reasonable value of the property at the time it is being used for the public."⁶ In every rate case which has come before it, the United States Supreme Court has held to the ruling that it is the value of the property used and useful in the public service which must be accepted as the measure of the reasonableness of rates.

Under the prudent investment theory, the reasonableness of rates would be measured by reference to the reasonable cost of the service. This cost criterion would be applied not only to the gross revenue but also to the net revenue. This theory would make the cost incurred in connection with procuring funds required for the utility's property the crucial factor. The cost of capital would include interest on the debt plus whatever dividends were required to induce the investors to furnish the necessary funds.⁷

The measure of the reasonableness of rates under the Massachusetts practice conforms more closely to the prudent investment theory than to the federal rule. As indicated above, the Massachusetts laws regulating the issue of securities of public service companies, particularly those provisions requiring that additional securities be issued at not less than par, have been instrumental in shaping the administrative policies in this regard. Under the Mas-

⁵ *Smyth v. Ames*, 169 U. S. 466, 546-547 (1898).

⁶ *San Diego Land & Town Co. v. National City*, 174 U. S. 739, 757 (1899).

⁷ J. Bauer, *Effective Regulation of Public Utilities*, pp. 42-43.

sachusetts policy, those rates are held to be reasonable which will enable the utility to pay such dividends as will maintain the market value of its securities sufficiently above par so that additional securities may be issued at or above their par value.⁸ This rule-of-thumb device really means the acceptance of the cost of obtaining capital, measured by market quotations on utility stocks, as the criterion of the reasonableness of rates. It conforms only indirectly and accidentally to the measure of reasonable rates set up by the Supreme Court.

The Basis for the Computation of the Return

The Supreme Court has consistently maintained that in regulation the rates established must be based upon the present fair value of the property placed at the disposal of the public. As noted above, this rule was first formulated in the case of *Smyth v. Ames*, 1898, and affirmed in the *San Diego Land and Town Company* case of 1899.⁹ The doctrine of the reasonable value of the property at the time used as the basis for the establishment of rates was so firmly established by 1903 that Mr. Justice Holmes, writing the decision of the court in another *San Diego Land and Town Company* case, remarked:

The main object of attack is the valuation of the plant. It no longer is open to dispute that under the Constitution "what the company is entitled to demand, in order that it may have just compensation, is a fair return upon the reasonable value of the property at the time it is being used for the public." *San Diego Land and Town Company v. National City*, 174 U. S. 739 and 757. That is decided, and is decided as against the contention that you are to take the actual cost of the plant, annual depreciation, etc., and to allow a fair profit on that footing over and above expenses.¹⁰

In the *Knoxville Water* case, the Supreme Court held that accrued depreciation should be deducted from the reproduction cost in arriving at the present fair value for rate-making purposes.¹¹

⁸ *Supra*, p. 106.

⁹ *Supra*, p. 160.

¹⁰ *San Diego Land & Town Co. v. Jasper*, 189 U. S. 439, 442 (1903).

¹¹ *Knoxville v. Knoxville Water Co.*, 212 U. S. 1, 9 *et seq.* (1909).

In the Minnesota Rate Cases, the court placed the present fair value rule on firmer ground by restating that the reproduction cost estimate as to structures should be diminished by the accrued depreciation, while land should be included at present value as measured by the fair market value of similar and adjacent land.¹² And in the Des Moines Gas case, the court stated that it was "not a question of what was expended in the plant in question, but what it would cost to reproduce a similar plant at the present time."¹³

The question of what basis should be used for the computation of the return has become particularly acute following the rise in prices incident to the war. In the Supreme Court decisions of the past decade, the necessity of finding the *present* fair value of a utility's property has been emphasized repeatedly, and greater weight has been placed upon the reproduction cost estimate as evidence of the appropriate rate base. For example in the Denver Water case in 1918, the court approved of the process of estimating the property of the company upon "the basis of present market values as to land, and reproduction cost, less depreciation, as to structures."¹⁴

In the Southwestern Bell Telephone Company case,¹⁵ decided May 21, 1923, the Supreme Court was faced directly with the choice between present fair value and prudent investment as the basis upon which the fair return should be computed. Mr. Justice Brandeis in a detailed separate opinion presented the case for the

¹² Minnesota Rate Cases, 230 U. S. 352 (1913).

The statement of the court at page 454 seems to have been a definite rejection of investment as the basis upon which reasonable rates should be computed:

"It is clear that in ascertaining the present value we are not limited to the consideration of the amount of the actual investment. If that has been reckless or improvident, losses may be sustained which the community does not underwrite. As the company may not be protected in its actual investment, if the value of its property be plainly less, so the making of a just return for the use of the property involves the recognition of its fair value if it be more than its cost. The property is held in private ownership and it is that property, and not the original cost of it, of which the owner may not be deprived without due process of law."

¹³ *Des Moines Gas Co. v. Des Moines*, 238 U. S. 153, 168 (1915).

¹⁴ *Denver v. Denver Union Water Co.*, 246 U. S. 178, 191 (1918).

¹⁵ *S. W. Tel. Co. v. Pub. Serv. Comm.* (Mo.), 262 U. S. 276 (1923).

adoption of prudent investment as the only proper and adequate rate base, and pointed to Massachusetts as an outstanding example of the application of this policy.¹⁶ He was unable, however, to persuade the majority of the court either that the present fair value rule was unworkable or that the prudent investment theory was superior. The central thought in the decision of the majority was that present prices must be given due weight in fixing the fair value of a utility's property for rate-making purposes. Thus Mr. Justice McReynolds, in delivering the opinion of the court, said:

It is impossible to ascertain what will amount to a fair return upon properties devoted to public service without giving consideration to the cost of labor, supplies, etc., at the time the investigation is made. An honest and intelligent forecast of probable future values made upon a view of all the relevant circumstances, is essential. If the highly important element of present costs is wholly disregarded such a forecast becomes impossible. Estimates for to-morrow cannot ignore prices of to-day.¹⁷

In addition to affirming the fair value rule laid down in *Smyth v. Ames*, this decision introduced the idea that the future trend of prices should be considered in the determination of the rate base. Because the Missouri commission had failed to give weight to the increase in prices due to the war, the Supreme Court reversed the decision of the Missouri Supreme Court upholding the commission's order. In this case current prices were held to be controlling in the determination of fair value for rate-making purposes.

In the *Bluefield Water Works* case,¹⁸ the Supreme Court similarly overruled the West Virginia Supreme Court's decision supporting the commission's finding as to the rate base. It was pointed out that the rate base to be determined was present value, and the reproduction cost estimate less depreciation was accepted as the controlling measure of the fair value. Mr. Justice Butler, who delivered the court's opinion, said:

It is clear that the court also failed to give proper consideration to the higher cost of construction in 1920 over that in 1915 and before the

¹⁶ *Ibid.*, pp. 289 *et seq.*

¹⁷ *Ibid.*, pp. 287-288.

¹⁸ *Bluefield Co. v. Pub. Serv. Comm.* (W. Va.), 262 U. S. 679 (1923).

war, and failed to give weight to cost of reproduction less depreciation on the basis of 1920 prices, or to the testimony of the company's valuation engineer, based on present and past costs of construction, that the property in his opinion, was worth \$900,000. The final figure, \$460,000, was arrived at substantially on the basis of actual cost less depreciation plus ten per cent for going value and \$10,000 for working capital. This resulted in a valuation considerably and materially less than would have been reached by a fair and just consideration of all the facts. The valuation cannot be sustained.¹⁹

The commission had based its finding upon what was approximately the prudent investment, and this measure of fair value was very definitely rejected.²⁰

Reproduction cost less depreciation is not, however, under all circumstances, to be taken as the controlling factor, as was shown by the decision of the United States Supreme Court in the Georgia Railway case.²¹ The commission had made the valuation on the basis of pre-war cost of structures, actual cost of property acquired or installed after 1914, and the present market value of the land. The finding of the commission was upheld by the Supreme Court. The decision reiterated that present fair value is not necessarily the same as reproduction cost new less accrued depreciation.²²

¹⁹ *Bluefield Co. v. Pub. Serv. Comm.* (W. Va.), 262 U. S., p. 692 (1923).

²⁰ The case was remanded to the commission for further action. While feeling that they should not lose sight of investment and other elements, the commissioners stated that, under the decision of the United States Supreme Court, they thought that great weight should be given to reproduction cost new less depreciation. The final valuation was fixed at \$758,544. (*Re Bluefield Water Works & Improvement Company*, P. U. R. 1924D, 325, 335.)

²¹ *Georgia Railway & Power Co. v. R. R. Comm.* (Ga.), 262 U. S. 625 (1923).

²² Mr. Justice Brandeis in delivering the opinion of the court stated:

"This case is unlike *Missouri ex rel. Southwestern Bell Telephone Co. v. Public Service Commission*, ante, 276. Here the Commission gave careful consideration to the cost of reproduction; but it refused to adopt reproduction cost as the measure of value. It declared that the exercise of a reasonable judgment as to the present 'fair value' required some consideration of reproduction costs as well as of original costs, but that 'present fair value' is not synonymous with 'present replacement costs,' particularly under abnormal conditions. That part of the rule which declares the utility entitled to the benefit of increases in the value of property was, however, specifically applied in the allowance of \$125,000 made by the Commission to represent the appreciation in the value of the

The Indianapolis Water case restated the Supreme Court doctrine that it is the present value of the used and useful property which is the basis upon which a public service company must be permitted to earn a return. Not only was the importance of using present unit prices emphasized, but the court stated that where possible a reasonable forecast of the future trend of prices was required. In regard to the necessity of considering the future as well as the present, the court said:

But in determining present value, consideration must be given to prices and wages prevailing at the time of the investigation; and, in the light of all the circumstances, there must be an honest and intelligent forecast as to the probable price and wage levels during a reasonable period in the immediate future. In every confiscation case, the future as well as the present must be regarded. It must be determined whether the rates complained of are yielding and will yield, over and above the amounts required to pay taxes and proper operating charges, a sum sufficient to constitute just compensation for the use of the property employed to furnish the service; that is, a reasonable rate of return on the value of the property at the time of the investigation and for a reasonable time in the immediate future.²³

The court stated that there was no rule determining the relative weight to be given to original cost and cost of reproduction less depreciation. Because of the rise in prices due to the war, the cost of reproduction new less depreciation was accepted as the nearest approach to the present value of the company's property. The opinion of the court on this point read:

The decision of this court in *Smyth v. Ames*, 169 U. S. 466, 547, declares that to ascertain value "the present as compared with the original cost of construction" are, among other things, matters for consideration owned. The lower court recognized that it must exercise an independent judgment in passing upon the evidence; and it gave careful consideration to replacement cost. But it likewise held that there was no rule which required that in valuing the physical property there must be 'slavish adherence to cost of reproduction, less depreciation.' It discussed the fact that since 1914 large sums had been expended annually on the plant; that part of this additional construction had been done at prices higher than those which prevailed at the time of the rate hearing; and it concluded that 'averaging results, and remembering that values are . . . matters of opinion, . . . no constitutional wrong clearly appears.'" *Ibid.*, pp. 629-630.

²³ *McCardle v. Indianapolis Co.*, 272 U. S. 400, 408-409 (1926).

tion. But this does not mean that the original cost or the present cost or some figure arbitrarily chosen between these two is to be taken as the measure. The weight to be given to such cost figures and other items or classes of evidence is to be determined in the light of the facts of the case in hand. By far the greater part of the company's land and plant was acquired and constructed long before the war. The present value of the land is much greater than its cost; and the present cost of construction of those parts of the plant is much more than their reasonable original cost. In fact, prices and values have so changed that the amount paid for land in the early years of the enterprise and the cost of plant elements constructed prior to the great rise of prices due to the war do not constitute any real indication of their value at the present time.²⁴

Because of the emphasis on reproduction cost as a fair method of determining present value, this has been recognized as a leading case regarding the proper rate base and the methods of ascertaining the same.

A consideration of the rate cases that have been decided by the Supreme Court establishes definitely that the uniformly approved basis for the regulation of rates has been the present fair value of the property used by the utility for the convenience of the public.

Since the prudent investment theory has been developed chiefly by a few individuals rather than by the courts in a piecemeal fashion, it is possible to present the rate base as it would be under this theory more concisely and with fewer references to authority than was possible with the federal present fair value rule. For the advocates of this theory, the prime requisite of a good rate base is that it shall be fixed and definite.²⁵ This desire for a fixed and definite rate base has been the principal motive for the development of this policy, and has influenced every phase of it.

Under the federal rule, the investment is usually considered to be the tangible and intangible property which the company has devoted to the public service. And since it is the property which is devoted to the public service it is but fair and right that the utility

²⁴ *McCardle v. Indianapolis Co.*, 272 U. S. pp. 400, 410 (1926).

²⁵ J. Bauer, *Effective Regulation of Public Utilities*, p. 104. *Idem*, "The Problem of Effective Regulation," *Harvard Business Review*, V (October, 1926), 68, 71.

should earn a return upon the present value of that property. The supporters of the prudent investment school have a fundamentally different concept. For them, the investment is the amount of money actually paid into the corporate treasury by the original purchasers of the corporate securities. It is this monetary capital which, in their opinion, is placed at the service of the public, and not the property which is purchased with this money. In support of this position, Mr. Justice Brandeis, in his separate opinion in the *Southwestern Telephone Company* case, contended that,

The thing devoted by the investor to the public use is not specific property, tangible and intangible, but capital embarked in the enterprise. Upon the capital so invested the Federal Constitution guarantees to the utility the opportunity to earn a fair return. Thus, it sets the limit to the power of the State to regulate rates. The Constitution does not guarantee to the utility the opportunity to earn a return on the value of all items of property used by the utility, or of any of them. The several items of property constituting the utility, taken singly, and freed from the public use, may conceivably have an aggregate value greater than if the items are used in combination. The owner is at liberty, in the absence of controlling statutory provision, to withdraw his property from the public service; and, if he does so, may obtain for it exchange value. . . . But so long as the specific items of property are employed by the utility, their exchange value is not of legal significance.²⁶

It is recognized, by those who urged the adoption of prudent investment as the rate base, that it is practically impossible to discover the actual past investment for the majority of public utilities. Therefore, the first step would be to make an appraisal of each company's property at the actual or reasonable cost of installation, from which accrued depreciation would be deducted, and the final result would be accepted as the net monetary investment in the utility's property, unaffected by changes in the level of prices. This figure would then be subject to adjustment to meet any requirement as to the fair treatment of common stockholders, —the main purpose of such adjustment being to compensate for changes in the price level subsequent to their investment. This initial valuation, once determined and adjusted, would be fixed and

²⁶ 262 U. S. 276, 290 (1923).

unchanged for the future, save for any impairment due to depreciation, additions, and extensions, etc. In the light of this valuation, the books of the company would be rewritten and the results of the appraisal shown in the accounts. For the future, the return would be based upon the initial figure plus actual future investments; and all extensions and improvements would be included in the accounts at actual cost under commission supervision. Under this program, the investment would be kept unimpaired; all the properties would, under commission regulation, be maintained through current repairs and reserves for depreciation and renewals. Thus the rate base, as of any particular date, would be "the original cost of the properties as shown by the accounts, less the depreciation reserve."²⁷

From what has already been said regarding the basis for rate regulation in Massachusetts, it is very evident that the federal rule of present fair value has not been adopted there.²⁸ It has generally been supposed by those interested in the matter, that the Massachusetts regulatory commissions had accepted the prudent investment rate base as the basis upon which Massachusetts utilities were entitled to earn a fair return;²⁹ but the statement of Commissioner Henry G. Wells quoted above³⁰ raises very serious doubts as to whether Massachusetts has ever applied what is generally understood to be the prudent investment theory. The conclusion on this question—whether Massachusetts has in reality applied the prudent investment theory—will be reserved until this comparison is completed. So far as the statements of the Public

²⁷ Bauer, "The Problem of Effective Regulation," *Harv. Bus. R.*, V (October, 1926), 68, 74-75.

In this part of the work reference is made to Dr. Bauer's article in the *Harvard Business Review* because of the greater convenience in dealing with a concise summary of his theory. The present writer is, however, acquainted with Dr. Bauer's *Effective Regulation of Public Utilities*, and all comments and criticisms are offered in the light of this fuller presentation of his plan.

²⁸ *Supra*, p. 111.

²⁹ Opinion of Mr. Justice Brandeis in *S. W. Tel. Co. v. Pub. Serv. Comm.*, 262 U. S. 276, 301 *et seq.* (1923). Opinion of Commissioner Eastman in *Excess Income of St. Louis & O'Fallon Ry. Co.*, 124 I.C.C. 3, 49-59 (1927). L. R. Nash, *The Economics of Public Utilities*, pp. 166-168. R. H. Whitten, and D. F. Wilcox, *Valuation of Public Service Corporations*, I, 127, 306-322.

³⁰ *Supra*, p. 151.

Service Commission and the Board of Gas and Electric Light Commissioners are concerned, the utilities were said to be allowed to earn upon the amount of capital honestly and prudently invested. The Massachusetts concept of what the investors devote to the public service has, hence, coincided with the statement of Mr. Justice Brandeis quoted above;³¹ i.e., the amount of monetary capital paid in by the investors. The two previous commissions, when they considered it necessary to discuss a rate base, usually mentioned the aggregate par value of the outstanding securities as the proper measure of the investment.³² The present members of the Department of Public Utilities, in their opinions in the rate cases coming before them, have apparently accepted the aggregate par value of the outstanding securities plus paid-in premiums as the prudent investment upon which the Massachusetts utilities should be permitted to earn a return.³³ Even where there has been a discussion of "fair value" or "present fair value" in the Massachusetts decisions, it has been nothing more than a formal verbal recognition of the Supreme Court doctrine. It has already been indicated that, while it is relatively easy to quote from the opinions of the Massachusetts regulatory boards to show what they have said, it is practically impossible to say definitely what they have actually accepted as a rate base.³⁴ In virtually all of the cases that have come before them, the Massachusetts commissions have failed to make any finding as to a specific rate base.³⁵

The Ascertainment of the Rate Base

As regards the ascertainment of the present fair value of a utility's property under the federal rule, the Supreme Court prescribed both the method of procedure and the measures of such fair value in the much quoted case of *Smyth v. Ames*. After stating that the present fair value of the utility's property should be taken as the basis for the calculation of reasonable rates, the court said:

. . . And in order to ascertain that value the original cost of construction, the amount expended in permanent improvements, the amount

³¹ *Supra*, p. 167.

³² *Supra*, pp. 113 *et seq.*, 119.

³⁴ *Supra*, p. 143.

³³ *Supra*, p. 119.

³⁵ *Supra*, pp. 143 *et seq.*

and market value of its bonds and stock, the present as compared with the original cost of construction, the probable earning capacity of the property under the particular rates prescribed by statute, and the sum required to meet operating expenses, are all matters for consideration, and are to be given such weight as may be just and right in each case. We do not say that there may not be other matters to be regarded in estimating the value of the property.³⁶

Throughout the three decades that have passed since this statement was made, the "rule" has been modified, extended, elaborated, and strengthened; but, in spite of the urgings of those who have opposed it on practical or theoretical grounds, it has never been discarded, and remains as the accepted "rule" of the Supreme Court.

Certain of these "matters for consideration," or what we may term "measures" of fair value, are of rather secondary importance in the practical determination of the reasonableness of rates. Massachusetts is virtually the only state in which the amount of bonds and stocks outstanding is used as important evidence of the amount on which the utility should be permitted to earn a return. And in nearly every other jurisdiction, the market value of the outstanding securities has been considered by the regulatory commission and promptly discarded. The principal reasons why the market value of outstanding securities has been rejected by the regulatory commissions are that it involves reasoning in a circle since the value of the stock depends upon net return the utility is permitted to earn, that it includes property not devoted to public purposes, and that the market value of securities is subject to fluctuations due to influence wholly outside the utility field.³⁷

³⁶ *Smyth v. Ames*, 169 U. S. 466, 546-547 (1898).

³⁷ H. B. Vanderblue, *Railroad Valuation*, p. 19.

W. H. Maltbie in his book on *Public Utility Valuation* suggests that the market value of the outstanding securities does give some independent indication of the present value of the utility's property because it represents "the consensus of the business judgment of the community as to the intrinsic value and earning power, present and prospective, of the property in question." P. 27.

And L. R. Nash in his *Economics of Public Utilities*, at page 116, says with regard to market value of securities as a measure of fair value:

"The consideration of earning capacity in the *Smyth v. Ames* case may be regarded therefore, not as an oversight or illogical reasoning on the part of the court, but as a recognition of non-physical elements of value arising from

The last two matters for consideration—"the probable earning capacity of the property under the particular rates prescribed" and "the sum required to meet operating expenses"—are important in indicating whether or not the particular rates prescribed are reasonable or unreasonable, but they are of no aid to the determination of the rate base.

Accordingly the two measures which are most frequently used in the practical determination of the rate base are the original cost to date—i.e., "the original cost of construction" plus "the amount expended in permanent improvements," and the cost of reproduction—or "the present as compared with the original cost of construction." There is no definite formula for the ascertainment of the present value, nor of the relative weights to be assigned to original cost or reproduction cost.³⁸ Where it is possible to do so from the books and accounts, the original cost of the units in service must be obtained. To secure the reproduction cost, a careful inventory and appraisal of all the property of the utility must be made. By actual inspection of the units of property, an estimate must be made as to the amount of accrued depreciation, and this sum deducted from the estimate of the cost of reproduction new. Since all elements of value must be included in the rate base, an adjustment has to be made for non-physical and intangible elements of value. From these measures or evidences of value, in the light of the past history of the company and of a reasonable forecast of future conditions, the impartial regulatory body is expected to determine the sum which should constitute the rate base upon which the utility is justly entitled to earn a fair and reasonable rate of return.³⁹ The final rate base must represent the favorable location or operating conditions which are reflected in the earnings or expenses, but not disclosed by any evidence of original cost or cost of reproduction of the physical property. Such a view tends to diminish the differences otherwise existing between a public utility rate base and the commercial concept of value."

³⁸ "The ascertainment of that value is not controlled by artificial rules. It is not a matter of formulas, but there must be a reasonable judgment having its basis in a proper consideration of all relevant facts." *Minnesota Rate Cases*, 230 U. S. 352, 434 (1913).

³⁹ For specific and detailed illustrations of the methods of ascertaining the appropriate rate base approved by the Supreme Court, consult the following cases: *S. W. Tel. Co. v. Pub. Serv. Comm.* (Mo.), 262 U. S. 276 (1923); *Georgia*

present value of the property used and useful for the public convenience.⁴⁰

Under the prudent investment theory, the determination of the rate base would be simply an accounting proposition. As stated above, there would be an initial valuation to determine the net monetary investment in the property as of the date of the inauguration of the prudent investment policy.⁴¹ The subsequent additions and betterments, and withdrawals and retirements would presumably take place under commission supervision and be properly recorded in the accounts. Accordingly, as of any given date, the rate base would consist of the original cost of the properties, used and useful on that date, as shown by the accounts, less the depreciation reserve. By this method, it is expected that the rate base could be determined quickly and easily, and without dispute between the company and the representatives of the public. In regard to the determination of the rate base under his proposed plan, Dr. Bauer said:

Consequently, at any time, the net investment entitled to a return would be the total amounts of the property and asset accounts, less the total amount of the depreciation reserve and the current non-interest bearing liabilities outstanding. . . . If the control accounts are kept, such additional investment as made would be added to the account on each side of the balance sheet. At every point the accounts would show definitely the amount of the rate base. The additions to the property accounts from time to time should have the prior approval of the commission, both as to the desirability of the construction and changes intended, and as to the reasonableness and propriety of the costs charged to the account. Under this procedure, there could be no question at any

Ry. Co. v. R. R. Comm. (Ga.), 262 U. S. 625 (1923); *Bluefield Co. v. Pub. Serv. Comm.* (W. Va.), 262 U. S. 679 (1923); *Bd. of Commrs. (N. J.) v. N. Y. Tel. Co.*, 271 U. S. 23 (1926); *McCardle v. Indianapolis Co.*, 272 U. S. 400 (1926).

⁴⁰ In criticism of the federal present fair value rule, it has frequently been said that this rule requires a new valuation and a change in the rate base with every minor fluctuation in prices. But the Supreme Court, in *McCardle v. Indianapolis Co.*, 272 U. S. 400 (1926), at page 411, denied this: "While the values of such properties do not vary with frequent minor fluctuations in prices of material and labor required to produce them, they are affected by and generally follow the relatively permanent levels and trends of such prices."

⁴¹ *Supra*, pp. 167 *et seq.*

time as to the amount on which the investors are entitled to a return. . . . There would be no possibility of giving the investors an advantage in accumulating an excessive depreciation reserve, nor would the investors be penalized if for a short period of time the reserves should be inadequate. The purpose would be to eliminate any cause of dispute as to the amount of the investment, the rights of the investors, and the obligations of the consumers.⁴²

The failure of the Massachusetts commissions to make any definite finding as to a specific rate base has already been noted.⁴³ So far as the actual regulation of rates is concerned, there has been no effort made to use any basis in deciding what rates the utilities may properly be permitted to earn. The sole concern of the Massachusetts commissions, as previously indicated, has apparently been so to adjust rates as to enable the utilities under their jurisdiction to pay dividends adequate to keep the market value of their securities sufficiently above their par value as to permit the marketing of additional securities at not less than par.⁴⁴ Thus if any base were considered by the regulatory commission in Massachusetts, it might be said to be the aggregate par value of the outstanding securities, or that sum plus any premiums paid in to the corporate treasury.

Treatment of Various Elements of Value

Under the present fair value doctrine of the Supreme Court, there is usually a careful and detailed consideration of all the various elements of value which may properly enter into a utility's rate base. It is in the failure to give detailed consideration to these elements of value that the prudent investment theory and the so-called Massachusetts rule present the sharpest contrast to the practice approved by the federal courts. Because of the wide disparity in this regard, anything more than the most summary reference to these elements of value would be out of place here. But some mention of the treatment accorded particular items is worth

⁴² Bauer, *Effective Regulation of Public Utilities*, pp. 244-245.

The validity of some of the arguments urged in favor of prudent investment as a rate base will be subsequently considered.

⁴³ *Supra*, pp. 143 *et seq.*

⁴⁴ *Supra*, pp. 154 *et seq.*

while in that it serves to indicate significant differences between the three regulatory programs.

In regard to tangible property in general very little need here be said. In securing the present fair value, the reproduction cost estimate requires a detailed inventory of physical property by competent engineers, checked by comparison with the records and accounts, the application of unit prices to arrive at an appraisal, and an inspection of the depreciable property to determine the amount to be deducted as covering the accrued depreciation. Under the prudent investment theory, there is no logical necessity to make a valuation of the property of the utility, since presumably all property has been included in the accounts. The Massachusetts practice conforms to the prudent investment theory in dispensing with the necessity for a detailed consideration of the property of a public utility.

Land has usually been given special treatment in valuation of the property of public utilities. There are certain characteristics of land which, partially at least, justify this separate consideration. In the first place, land, unlike the other physical property of a utility, is not ordinarily subject to depreciation. Land is also definitely limited in amount; and hence the normal trend of land values is upward so that to reacquire a particular site would, in general, require an expenditure larger than its original cost.

The statement of the Supreme Court in the Minnesota Rate Cases is the leading authority on the valuation of land for rate-making purposes.⁴⁵ The reproduction cost of land (or the cost of reacquiring land) was rejected as involving too much conjecture.⁴⁶ The use of multiples to arrive at the value of the railroad's land, and the inclusion of increments for severance damages, continuous strip value, "railway value" of land, and other conjectural costs were held to be improper in a valuation for rate-making pur-

⁴⁵ 230 U. S. 352 (1913).

⁴⁶ "The conditions of ownership of the property and the amounts which would have to be paid in acquiring the right of way, supposing the railroad to be removed, are wholly beyond reach of any process of rational determination. The cost of reproduction method . . . does not justify the acceptance of results which depend upon mere conjecture." *Ibid.*, 452.

poses.⁴⁷ The court strongly intimated that land should be included at its present value as measured by the market values of similar and adjacent lands,⁴⁸ on the assumption that the company was entitled to share in the general prosperity of the community as reflected in enhanced land values.

The advocates of the prudent investment theory of rate regulation have denied that there exists any justification for applying a separate valuation principle to land.⁴⁹ According to their view,

⁴⁷ "Assuming that the company is entitled to a reasonable share in the general prosperity of the communities which it serves, and thus to attribute to its property an increase in value, still the increase so allowed, apart from any improvements it may make, cannot properly extend beyond the fair average of the normal market value of land in the vicinity having a similar character. Otherwise we enter the realm of mere conjecture. We therefore hold that it was error to base the estimates of value of the right-of-way, yards and terminals upon the so-called 'railway value' of the property. The company would certainly have no ground of complaint if it were allowed a value for these lands equal to the fair average market value of similar land in the vicinity, without additions by the use of multipliers, or otherwise, to cover hypothetical outlays. The allowances made below for a conjectural cost of acquisition and consequential damages must be disapproved and, in this view, we also think it was error to add to the amount taken as the present value of the lands the further sums, calculated on that value, which were embraced in the items of 'engineering superintendence,' 'legal expenses,' 'contingencies' and 'interest during construction.'" *Ibid.*, 455.

⁴⁸ "It is clear that in ascertaining the present value we are not limited to the consideration of the amount of the actual investment. If that has been reckless or improvident, losses may be sustained which the community does not underwrite. As the company may not be protected in its actual investment, if the value of its property be plainly less, so the making of a just return for the use of the property involves the recognition of its fair value if it be more than its cost. The property is held in private ownership and it is that property, and not the original cost of it, of which the owner may not be deprived without due process of law. But still it is property employed in a public calling, subject to governmental regulation and while under the guise of such regulation it may not be confiscated, it is equally true that there is attached to its use the condition that charges to the public shall not be unreasonable. And where the inquiry is as to the fair value of the property, in order to determine the reasonableness of the return allowed by the rate-making power, it is not admissible to attribute to the property owned by the carriers a speculative increment of value, over the amount invested in it and beyond the value of similar property owned by others, solely by reason of the fact that it is used in the public service. That would be to disregard the essential conditions of the public use, and to make the public use destructive of the public right." *Ibid.*, 454.

⁴⁹ Bauer, *Effective Regulation of Public Utilities*, p. 198.

land should be included at the fair original cost actually paid.⁵⁰ This position is supported by the contention that land is subject to the same limitations from the public interest as affect other properties of a utility; namely, that the use of the land is restricted to the particular public service and, so long as it is so restricted and limited, there is no increase in its value for that public use.⁵¹ The attempt has been made to justify the inclusion of

⁵⁰ Bauer, *Effective Regulation of Public Utilities*, pp. 198, 201-203. And it is suggested that where the actual investment is not known it should be estimated.

Commissioner Eastman, in his separate opinion in *Excess Income of St. Louis & O'Fallon Railway Company*, 124 I.C.C. 3 (1927), expressed his disapproval of the inclusion of land at present market value at pages 58-59:

"More important, however, is the use of 'present value' of lands. Here the report departs from the principle followed in the case of structures and uses, in constructing the rate base, not the actual or approximate money outlay in the lands, but an amount based on the current market value of adjacent lands. Here the consequences of this deviation from principle are not important; but in other cases they may be of vital importance, particularly where the railroads have extensive land holdings in the heart of great cities. In the San Pedro case I discussed this question at length, and it is unnecessary to repeat all that was there said. Suffice it to say that there has never been any proof that if a carrier were able to sell the land which it uses for railroad purposes, it could command prices approaching the values which adjoining land enjoys with the railroad in operation. In most cases it is clear that it could not. But even if it could, under what theory does a carrier substituting for the State in the operation of a public highway become constitutionally entitled to unearned increment? I quote this single passage from my opinion in the San Pedro case:

"Under the carriers' theory, a community gains nothing from the fact that a railroad was built in due season under economical conditions, but must pay the same rates as if it were a newly constructed railroad which has smashed its way through the costly barrier of improved city real estate. Applied to public streets such a theory would be regarded as a mental aberration. Is it any less unsound when applied to a public highway owned and operated by a private corporation as the agent of the State?"

"The land-value doctrine in this case apparently means that when land has been donated by the State or by individuals to a railroad in aid of construction, the carrier from the moment it begins operation is entitled to exact from the public served a full return upon the value of that land based on the then market value of adjoining lands.

"I am unwilling to believe that the Constitution is an instrument of public oppression."

⁵¹ "When land is acquired for railroad or other public utility purposes, it is immediately restricted in use to the particular public service. Whatever the values which may develop in adjacent lands, these depend on the possibility of various other uses, mercantile, manufacturing, residential or what not. But utility lands are limited to the special enterprise, and are not available for the

land at actual investment on the grounds that any increment in value is unearned, that to include land at a figure above original cost would be requiring the public to pay a return upon its own contributions to utility developments,⁵² and that whatever appreciation there may be in the value of land is in the nature of income reinvested in the property and, as such, entitled to no return.⁵³ None of these arguments is very convincing. Even though the appreciation in the value of land is in the nature of an unearned increment, that is no reason why the investors in public utilities should be discriminated against by being denied this increase in the value of their investment which accrues, as a matter of course, to investors in other enterprises. If this policy were persistently pursued, not only would there be serious danger that investment in public utilities would be discouraged, but the utilities would be placed at a relative disadvantage in bidding for land against other businesses which could look forward to the benefits from an increase in the value of their land.⁵⁴ Indeed, so long as investors in other fields are permitted to receive the increase in the value of their lands, justice and equity would seem to require that similar treatment be accorded investors in public service companies. To refer to appreciation in land values as contributions of the public overlooks the very significant fact that the utilities themselves have usually been important factors in promoting the growth and development of the community. The method of treating appreciated land values as income has been disallowed by the courts.⁵⁵ To be properly considered as income, the earnings must proceed from the property, be separated from the property, and available for distribution as dividends or for the uses of the corporation;

uses which are the cause of the values developed in the adjacent properties. Consequently, whatever the increase in the value of other land, this is due to the possibility of especially profitable uses which are not open to the utility lands." Bauer, *Effective Regulation of Public Utilities*, pp. 199-200.

⁵² *Ibid.*, pp. 201-202.

⁵³ Commissioner Eastman in *Re San Pedro, Los Angeles & S. L. R. Co.*, 75 I.C.C. 463, 544-545 (1923).

⁵⁴ H. G. Brown, *Transportation Rates and Their Regulation*, pp. 22-23.

⁵⁵ See statements of the New York Supreme Court in *People ex rel. Kings County Lighting Co. v. Wilcox*, 141 N. Y. Supp. 677 (1913).

appreciation in the value of land clearly fails to conform to this definition.

As noted above, the Massachusetts commissions have consistently refused to include the land of a utility at its present value.⁵⁶ In this respect there is perfect agreement between the Massachusetts practice and the prudent investment theory.

It is significant to contrast the treatment accorded property which has been paid for out of earnings or profits under the different regulatory programs. Under the Supreme Court doctrine, it has been consistently held that the right of utility property to a return does not depend upon the source from which the money used to purchase the property was derived.⁵⁷ The money received from the consumers is in payment for a service rendered; and is not in any sense a contribution by the public to the capital or property of the company. Thus in the New York Telephone case, Mr. Justice Butler, in delivering the opinion of the court, said:

Customers pay for service, not for property used to render it. Their payments are not contributions to depreciation or other operating expenses, or to capital of the company. By paying bills for service they

⁵⁶ *Supra*, p. 131.

⁵⁷ "Constitutional protection against confiscation does not depend on the source of the money used to purchase the property. It is enough that it is used to render the service." *Bd. of Commrs. (N. J.) v. N. Y. Tel. Co.*, 271 U. S. 23, 31 (1926).

Cf. *San Joaquin Co. v. Stanislaus County*, 233 U. S. 454, 459 (1914); *Gas Light Co. v. Cedar Rapids*, 144 Ia. 426, 434 (1909), affirmed 223 U. S. 655 (1912); *Consolidated Gas Co. v. New York*, 157 Fed. 849, 858 (1907); affirmed 212 U. S. 19 (1909); *Ames v. Union Pacific Railway Co.*, 64 Fed. 165, 176 (1894).

Compare also the statement of the Board of Public Utility Commissioners of New Jersey in the *Passaic Gas Case*: "We cannot equitably project back into the unregulated past a norm of prices that might to-day be regarded as fair and adequate and assume that actual rates exacted in the past, insofar as they exceed what are now deemed fair, have not lawfully become the property of the company. If these high rates in the past have been employed by the company to acquire intangible property in the shape of extensive patronage, that expectation of patronage is theirs, and on its fair value the company is entitled to a return. It may or may not be a subject of regret that regulation was so long deferred; but deferred regulation is no excuse for refusing at present to allow a fair return upon what is the lawful property of the company." *Re Public Service Gas Co.*, 3d Ann. Rep. N. J. P. U. C. 246, 248 (1912); approved, 87 Atl. 651 (1913).

do not acquire any interest, legal or equitable, in the property used for their convenience or in the funds of the company. Property paid for out of moneys received for service belongs to the company, just as does that purchased out of proceeds of its bonds and stock.⁵⁸

There is no relation of "partners, agent and principal, or trustee and beneficiary" between a public utility and its customers.⁵⁹

At least one supporter of prudent investment would permit earnings reinvested in additions to form a part of the investment rate base.⁶⁰ It is suggested that the return would be so strictly limited that there would be little inducement for the stockholders to reinvest any earnings.⁶¹ The emphasis is placed upon the necessity for indicating accurately, by the accounts under commission supervision, the amount of the earnings so reinvested.⁶² But where such earnings have been reinvested, it is stated that they should henceforth be considered a permanent part of the capital investment and not available for the future payment of dividends.⁶³

In the treatment of reinvested earnings, the Massachusetts commissions have followed a wholly individual and unique practice. They have consistently held that reinvested surplus should not be capitalized, and have refused to authorize the issuance of securities for that purpose.⁶⁴ Likewise they have denied that reinvested earnings were a part of the investment, and have maintained that property paid for out of earnings need not be permitted to earn a return.⁶⁵ The Massachusetts authorities have taken the position

⁵⁸ *Bd. of Commrs. (N. J.) v. N. Y. Tel. Co.*, 271 U. S. 23, 32 (1926).

⁵⁹ *Ibid.*, p. 31. Cf. *Fall River Gas Works v. Gas & Electric Light Com'rs.*, 214 Mass. 529, 538 (1913).

⁶⁰ Bauer, *Effective Regulation of Public Utilities*, pp. 248-249.

⁶¹ *Ibid.*

⁶² "While for the most part additional investments would be made through the issuance of new securities, the plan of control should be sufficiently elastic to allow for additions made in any convenient and workable way. The paramount purpose should be to show definitely by the accounts what the additions are, no matter through what source they are provided. Consequently, while additions can be most readily indicated when they are financed directly through the issuance of securities, nevertheless, the same definiteness can be and should be maintained through whatever source the funds are obtained. The fundamental purpose is to make all additions to the investment stand forth clearly in the accounts." *Ibid.*

⁶³ *Ibid.*

⁶⁴ *Supra*, pp. 23, 134.

⁶⁵ *Supra*, pp. 133-138.

that the reinvested earnings were in the nature of contributions by the consuming public and, as such, could not be made the basis for securing a return thereon in the rates paid by those consumers.⁶⁶

The working capital of a utility ordinarily includes materials and supplies and cash.⁶⁷ These clearly constitute part of a utility's property used and useful for the public convenience; and, so long as the quantities are not excessive, should be included in the rate base. Under the federal rule, the propriety of including an allowance for working capital has usually been recognized.⁶⁸ Dr. Bauer has suggested a method of calculating the working capital which should be included in the initial valuation for the prudent investment rate base; namely, "determining the original cost of all the current assets reasonably employed in the public service less the amount of the current liabilities."⁶⁹ Presumably when the prudent investment theory was well established and the accounts adjusted to agree with the initial valuation, there would be no necessity for making any separate allowance for working capital. It has already been said that the Massachusetts practice relative to the treatment of working capital is not clear.⁷⁰ Usually there has been no separate discussion of working capital; but in at least one instance when a company had been permitted to issue securities to provide working capital, the Public Service Commission definitely held that the working capital should be considered a part of the investment entitled to a return.⁷¹

⁶⁶ *Supra*, p. 134.

⁶⁷ "For rate purposes working capital may be defined as the amount of capital which the investors are required to put into the business over and above the investment in plant and intangibles in order to cover the gap between cash expenditures in the production and delivery of service and the collection of the revenues from the sale of service." R. H. Whitten, and D. F. Wilcox, *Valuation of Public Service Corporations*, II, 1520.

⁶⁸ *Ohio Utilities Co. v. Pub. Ut. Comm.* (Ohio), 267 U. S. 359, 363 (1925); *Des Moines Gas Co. v. Des Moines*, 238 U. S. 153, 161 (1915); *Georgia Ry. v. R. R. Comm.* (Ga.), 262 U. S. 625, 632 (1923); *McCardle v. Indianapolis Water Co.*, 272 U. S. 400, 412 (1926).

⁶⁹ Bauer, *Effective Regulation of Public Utilities*, p. 206. The deduction of non-interest-bearing current liabilities is justified by pointing out that a failure to do so would be allowing "a return on a capital sum on which actually the company incurs no liability for return."

⁷⁰ *Supra*, p. 23.

⁷¹ *Supra*, p. 139.

Going value or going concern value has been the chief source of confusion and misunderstanding in the treatment of the intangible elements of value.⁷² Any element of good will has been specifically excluded from the valuation of a public utility.⁷³ Past losses and deficiencies, as such, have been held to be inadmissible by the Supreme Court.⁷⁴ Although there is usually some element of going value present in most utilities, there is no reason why it should invariably be present. Whether or not going value should be included in any particular case depends upon the past history of each individual company.⁷⁵

Despite the difficulties in the determination of going value, this element of value has been quite consistently recognized by the Supreme Court, although a separate allowance is not always made for it. In the *Des Moines Gas* case, the Supreme Court held that the going concern value was a property right upon which the utility should be permitted to earn a return:

⁷² For present purposes, going value may be defined as including those elements of value, if any, over and above the sum obtained from the valuation of the physical property plus the construction and organization overheads. It is the difference in value between two identical physical plants, one of which is in successful operation with an attached body of consumers, and the other of which is just about to begin operations.

⁷³ *Wilcox v. Consolidated Gas Co.*, 212 U. S. 19, 52 (1909); *Cedar Rapids Gas Co. v. Cedar Rapids*, 223 U. S. 655, 669 (1912).

⁷⁴ "The fact that a utility may reach financial success in time or not at all, is a reason for allowing a liberal return on the money invested in the enterprise; but it does not make past losses an element to be considered in deciding what the base value is and whether the rate is confiscatory. A company which has failed to secure from year to year sufficient earnings to keep the investment unimpaired and to pay a fair return, whether its failure was the result of imprudence in engaging in the enterprise, or of errors in management, or of omissions to exact proper prices for its output, cannot erect out of past deficits a legal basis for holding confiscatory for the future, rates which would, on the basis of present reproduction value, otherwise be compensatory." *Galveston Electric Co. v. Galveston*, 258 U. S. 388, 395 (1922).

See also *Knoxville v. Knoxville Water Co.*, 212 U. S. 1, 14 (1909); *Georgia Ry. v. R. R. Comm. (Ga.)*, 262 U. S. 625, 632 (1923); *Bd. of Commrs. (N. J.) v. N. Y. Tel. Co.*, 271 U. S. 23, 32 (1926).

⁷⁵ "Whether going concern value should be considered and allowed at all in determining the base for rate making, and, if allowed, what the amount of it should be, depends upon the financial history of the company." *Houston v. S. W. Tel. Co.*, 259 U. S. 318, 325 (1922). Cf. *Galveston Electric Co. v. Galveston*, 258 U. S. 388, 393-397 (1922).

That there is an element of value in an assembled and established plant, doing business and earning money, over one not thus advanced, is self-evident. This element of value is a property right, and should be considered in determining the value of the property, upon which the owner has a right to make a fair return when the same is privately owned although dedicated to a public use.⁷⁶

Dr. Bauer would include a separate element for going value in the initial valuation in so far as it contains an element of cost to the utility.⁷⁷ Past deficiencies in return and good will would be definitely excluded,⁷⁸ but the cost of obtaining customers would be included in the appraisal to arrive at the initial rate base.⁷⁹ After the initial valuation there would presumably be no need to give any separate consideration to going value, or the cost of obtaining customers, arising in the future, since all future capital outlays would be included in the accounts under commission supervision.

The Massachusetts practice has rigorously excluded all allowance for going value from the investment.⁸⁰ Since in the first in-

⁷⁶ *Des Moines Gas Co. v. Des Moines*, 238 U. S. 153, 165 (1915).

In this case, however, the Supreme Court upheld the master's valuation which had excluded a separate allowance for going value. The master found the going value to be \$300,000, but refused to include it as a separate allowance on the ground that a sufficient allowance had been made in connection with the other items in the valuation.

See also *Denver v. Denver Union Water Co.*, 246 U. S. 178, 190 (1918); *Georgia Ry. v. R. R. Comm.* (Ga.), 262 U. S. 625, 632 (1923); *McCardle v. Indianapolis Co.*, 272 U. S. 400, 413 (1926).

For lists of actual allowances made by commissions and courts, see *Re Mountain State Tel. & Tel. Co.*, P. U. R. 1923B, 352, 366; *Re Indianapolis Water Co.*, P. U. R. 1923D, 449, 502.

⁷⁷ Bauer, *Effective Regulation of Public Utilities*, p. 214.

⁷⁸ *Ibid.*, pp. 207 *et seq.*

⁷⁹ "We believe that there is a definite element of investment in at least some cases in addition to physical properties and working capital. This consists of the capital cost, if any, of obtaining existing customers. Where expenditures actually have been made to obtain customers, they do represent a capital outlay in addition to the properties and should therefore be included in the rate base. The argument that they have probably in most cases been charged entirely to operating expenses, is not sufficient to exclude them from the valuation. . . . We must recognize that to obtain customers may cost something besides the investment in physical properties. If there is such cost, it constitutes an investment. It is this investment, if any, which we suggest should be included as going value in the appraisals." *Ibid.*, p. 215.

⁸⁰ *Supra*, p. 139.

stance the cost of developing the business is usually taken from earnings, there has been no means by which the utilities in Massachusetts could capitalize these elements of cost. As the only rate base that has even been suggested as worthy of consideration by the Massachusetts authorities has been the aggregate par value of the outstanding securities or that sum plus paid-in premiums, it is a safe generalization to say that no provision has been made to permit the Massachusetts companies to earn a return upon any element representing going value.

In discussing non-physical elements affecting the value or rate base of a public utility, brief mention need be made only of overhead expenses in general and of appreciation. Overhead charges include such items as: costs of promotion, organization expenses, administrative and legal expenses, costs of engineering and supervision, omissions and contingencies, interest during construction, taxes during construction, cost of financing, etc.⁸¹ It is impossible to generalize concerning the treatment of overheads under the federal present fair value rule. Some or all of these items are usually recognized, either by a separate allowance for each individually or by a blanket allowance for all. Blanket allowances are applied as percentages of the reproduction cost appraisal, usually exclusive of land. The average percentage allowed by commissions has usually been about fifteen per cent (15%); and this has been generally accepted as reasonable.

Dr. Bauer confines his consideration of overheads to those which might appropriately be included in the initial valuation under the prudent investment theory. He recognizes five types of overhead charges that might be represented in the investment: organization expenses, engineering and superintendence, omissions and contingencies, taxes during construction, and interest during construction.⁸² He approves the method of making allowance for overheads as percentages of the physical valuation, and represents fifteen per cent (15%) as a reasonable allowance.⁸³ After the initial allowance for overheads on the existing proper-

⁸¹ For a good brief discussion of the items included in overhead charges and for appropriate allowances for each, see Nash, *op. cit.*, pp. 124 *et seq.*

⁸² Bauer, *Effective Regulation of Public Utilities*, pp. 216 *et seq.*

⁸³ *Ibid.*, pp. 222-223.

ties, there would presumably be no necessity, under the prudent investment theory, for giving them any separate consideration in the future regulation of rates.

As previously noted, the Massachusetts commissions have branded all allowances for overheads as "conjectural" and consistently refused, with the exception of the Bay State Street Railway case, to make any allowance for such items.⁸⁴

The question of appreciation in the value of utilities' properties arises in relation to buildings and equipment as well as in relation to land. The Supreme Court, in insisting upon present value as the rate base, has ruled that if there is any such appreciation the utility is entitled to the increase, just as it must suffer any decline in values that may occur.⁸⁵ The prudent investment theorists⁸⁶ and the Massachusetts commissioners⁸⁷ are in agreement in holding that appreciation should not be included in the investment upon which utilities should be permitted to earn a fair return.

There are still many unsettled questions as to the treatment of accrued depreciation in the regulation of the rates of public service companies. There was no discussion of depreciation in the *Smyth v. Ames* case. It was in the Knoxville Water case in 1909 that the Supreme Court first considered the relation of depreciation to the rate base. In this particular case, the court held that depreciation should be deducted from the reproduction cost new to secure a proper measure of the fair value.⁸⁸ In the *Minnesota Rate*

⁸⁴ *Supra*, p. 142.

⁸⁵ "It is well established that values of utility properties fluctuate, and that owners must bear the decline and are entitled to the increase." *McCardle v. Indianapolis Co.*, 272 U. S. 400, 410 (1926). Cf. *supra*, pp. 161 *et seq.*, 174-175.

⁸⁶ *Supra*, pp. 167, 175 *et seq.*

⁸⁷ *Supra*, p. 142.

⁸⁸ "Before coming to the question of profit at all the company is entitled to earn a sufficient sum annually to provide not only for current repairs but for making good the depreciation and replacing the parts of the property when they come to the end of their life. The company is not bound to see its property gradually waste, without making provision out of earnings for its replacement. It is entitled to see that from earnings the value of the property is kept unimpaired, so that at the end of any given term of years the original investment remains as it was at the beginning. It is not only the right of the company to make such a provision, but it is its duty to its bond and stockholders, and, in the case of a public service corporation at least, its plain duty to the public. . . . If, however, a company fails to perform this plain duty and to

Cases, the Supreme Court refused to approve an appraisal where there had been no deduction for depreciation, saying:

It must be remembered that we are concerned with a charge of confiscation of property by the denial of a fair return for its use; and to determine the truth of the charge there is sought to be ascertained the present value of the property. The realization of the benefits of property must always depend in large degree on the ability and sagacity of those who employ it, but the appraisement is of an instrument of public service, as property, not of the skill of the users. And when particular physical items are estimated as worth so much new, if in fact they be depreciated, this amount should be found and allowed for. If this is not done, the physical valuation is manifestly incomplete.⁸⁹

In subsequent cases, the Supreme Court has been quite consistent in requiring the deduction of accrued depreciation from the reproduction cost new estimate.⁹⁰

The Supreme Court has not held that the law requires public service companies to accumulate any depreciation reserve.⁹¹ It refused to make deduction for merely theoretical accrued depreciation estimated on the basis of life tables. In the Indianapolis Water case, Mr. Justice Butler, in delivering the opinion of the court, said: "The testimony of competent valuation engineers who examined the property and made estimates in respect to its con-

exact sufficient returns to keep the investment unimpaired, whether this is the result of unwarranted dividends upon overissues of securities, or of omission to exact proper prices for the output, the fault is its own. When, therefore, a public regulation of its prices comes under question the true value of the property then employed for the purpose of earning a return cannot be enhanced by a consideration of the errors in management which have been committed in the past." *Knoxville v. Water Co.*, 212 U. S. 1, 13-14, (1909).

⁸⁹ *Minnesota Rate Cases*, 230 U. S. 352, 458 (1913).

⁹⁰ "What we have said establishes the propriety of estimating complainants' property on the basis of present market values as to land, and reproduction cost less depreciation, as to structures." *Denver v. Denver Union Water Co.*, 246 U. S. 178, 191 (1918).

"And it is true that, if the tendency or trend of prices is not definitely upward or downward and it does not appear probable that there will be a substantial change of prices, then the present value of lands plus the present cost of constructing the plant, less depreciation, if any, is a fair measure of the value of the physical elements of the property." *McCardle v. Indianapolis Co.*, 272 U. S. 400, 411 (1926).

⁹¹ *Kansas City Southern v. United States*, 231 U. S. 423, 452 (1913).

dition is to be preferred to mere calculations based on averages and assumed probabilities."⁹² The other federal and state courts have followed the Supreme Court in making deductions only for actual depreciation and refusing to make deductions for theoretical depreciation.⁹³

Under the prudent investment theory, accrued depreciation would be deducted from the original cost to arrive at the initial valuation or rate base,⁹⁴ and it would also be deducted from the original cost, as shown by the accounts, to arrive at the rate base as of any future date.⁹⁵ In regard to the deduction from original cost to arrive at the initial valuation, Dr. Bauer has stated:

But whatever method be considered the more just and practical, the intent should be to deduct from the original cost of the existing properties an amount representing the impaired usefulness of the constituent parts. . . . The deduction for depreciation merely eliminates the part of the capital costs which belongs to past operation and was a part of the past cost of service. The remainder represents the net costs

⁹² *McCardle v. Indianapolis Co.*, 272 U. S. 400, 416 (1926). Cf. *Pacific Gas & E. Co. v. San Francisco*, 265 U. S. 403, 406 (1924).

⁹³ See *Consolidated Gas Co. v. Newton*, 267 Fed. 231, P. U. R. 1920F, 483 (1920); affirmed 258 U. S. 165, P. U. R. 1922B, 752 (1922); *N. Y. & Queens Gas Co. v. Newton*, 269 Fed. 277, P. U. R. 1921A, 530, 538 (1920). *Bronx Gas & Electric Co. v. Pub. Serv. Comm.*, P. U. R. 1923A, 255, 277, 281 (1922); *Landon v. Court of Industrial Relations*, 269 Fed. 433, 445 (1920); *Winona v. Wisconsin-Minnesota Light & Power Co.*, 276 Fed. 996, 1004 (1920); *N. Y. Tel. Co. v. Prendergast*, 300 Fed. 822, 826 (1924).

⁹⁴ Bauer, *Effective Regulation of Public Utilities*, p. 157.

⁹⁵ *Idem*, "The Problem of Effective Regulation," *Harv. Bus. R.*, V (October, 1926), 68, 75.

In regard to the deduction of accrued depreciation, Commissioner Eastman in his separate opinion in the O'Fallon case stated:

"The deduction for depreciation is a matter which, perhaps, merits comment supplementing the discussion in the report. To the extent that depreciation has occurred, from whatever cause, property ceases to exist. This loss of property may not for some time interfere with the efficient operation of the units in which it has occurred, any more than the gradual wearing away of a lead pencil prevents its efficient use. The effect is cumulative up to a time of maturity when the unit must be retired. Nevertheless the loss is real and the owners of the property are entitled to reimbursement by charging the loss to operating expense, just as the gradual consumption of the coal pile is charged to operating expense. Whatever basis of valuation be used, in strict theory property which has thus ceased to exist ought not to be included in the inventory." *Excess Income of St. Louis & O'Fallon Ry. Co.*, 124 I.C.C. 3, 56 (1927).

incurred for the benefit of future operation. This, then, is the net investment in property on which a return is required as a distinct cost element.⁹⁶

This proposal differs radically from the practice of the commissions and courts under the federal present fair value rule. To deduct accrued depreciation from the cost of reproduction new estimate, when the utility is allowed to include in its rate base appreciation in the value of its other properties, is a very different proposition from making the same reduction from the original cost or investment. Such a policy would appear to work serious injustice as against the owners of the utility. The absence of a depreciation reserve does not necessarily indicate that the management of a utility has been derelict in its duty either to the public or to its stockholders. If a utility has sacrificed the opportunity to accumulate a depreciation reserve in the early years of its existence in order that, by charging low rates which will be remunerative only with the low unit costs which accompany capacity output, its potential customers may be persuaded to make early use of its services, such a policy is clearly in the public interest, and should certainly not be made the occasion for a permanent reduction in the rate base.

The accumulation of a depreciation reserve would be both necessary and desirable under the prudent investment theory.⁹⁷ With a growing utility, this reserve would presumably be invested in additions and improvements, and so form an addition to the investment:⁹⁸ while with a stationary property, the reserves would be invested in income-bearing securities and the consumers would be relieved from paying a return to the extent of the reserves so invested.⁹⁹ In regard to the services performed by the depreciation reserves, it has been claimed that "they serve, therefore, not only to maintain fully the investment and safeguard financial stability, but also to equalize the cost of service and rates paid by succeed-

⁹⁶ Bauer, *Effective Regulation of Public Utilities*, p. 157.

⁹⁷ *Ibid.*, pp. 186-189.

⁹⁸ *Ibid.*, p. 188.

⁹⁹ *Ibid.* This overlooks the fact that funds invested in outside securities would in all probability not earn so large a return as funds invested in the property; and thus the deduction of the reserves from original cost or investment would result in a diminution of the return to investors.

ing generations of consumers, covering the period of development before settled conditions obtain."¹⁰⁰

For the future ascertainment of the rate base, the prudent investment theory would require the deduction of the depreciation reserve from the original cost as shown by the accounts as of the date of the inquiry.¹⁰¹ So long as the reserves were reinvested in the property, this deduction would result in no diminution of the rate base, and so presumably, no decrease in the dividends that could be distributed.

The Massachusetts policy relative to the treatment of accrued depreciation has previously been considered at some length.¹⁰² In the absence of positive proof of mismanagement, accrued depreciation has not been deducted from the investment. This practice has the same ultimate effect as the policy advocated under the prudent investment theory where the investment is increased by the amount of the depreciation reserves invested in the property and then diminished by the amount of the reserve. The Massachusetts commissions have, in general, favored the accumulation of very generous depreciation reserves and have held that the utilities should not be permitted to earn a return on these reserves, even though excessive.¹⁰³

The Rate of Return

The procedure in the determination of the proper percentage rate of return to be allowed upon the fair rate base differs in principle and practice under the federal rule, the investment theory, and the Massachusetts policy. It is an established part of the federal rule that the reasonable return depends upon the facts and circumstances of each individual case.¹⁰⁴ The Supreme Court decisions have emphasized such items as risk, the general rate of return

¹⁰⁰ Bauer, *Effective Regulation of Public Utilities*, p. 188.

¹⁰¹ *Ibid.*, pp. 176-177. *Idem*, "The Problem of Effective Regulation," *Harv. Bus. R.*, V (October, 1926), 68, 75.

¹⁰² *Supra*, pp. 139 *et seq.*

¹⁰³ *Supra*, p. 141.

¹⁰⁴ "There is no particular rate of compensation which must in all cases and in all parts of the country be regarded as sufficient for capital invested in business enterprises. Such compensation must depend greatly upon circumstances and locality; among other things, the amount of risk in the business is a most important factor, as well as the locality where the business is conducted

earned by businesses of similar risks in the same part of the country, freedom from competition, and the purchasing power of money.¹⁰⁵ In the Bluefield case, the Supreme Court added another criterion; namely, that the rate of return should be such as will support the credit of the utility and make its stock an attractive investment. Mr. Justice Butler, in delivering the court's opinion, said:

The company contends that the rate of return is too low and confiscatory. What annual return will constitute just compensation depends upon many circumstances and must be determined by the exercise of a fair and enlightened judgment having regard to all relevant facts. A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties.¹⁰⁶

and the rate expected and usually realized there upon investments of a somewhat similar nature with regard to the risk attending them. There may be other matters which in some cases might also be properly taken into account in determining the rate which an investor might properly expect or hope to receive and which he would be entitled to without legislative interference. The less risk, the less right to any unusual returns upon the investments. One who invests his money in a business of a somewhat hazardous character is very properly held to have the right to a larger return without legislative interference than can be obtained from an investment in Government bonds or other perfectly safe security." *Wilcox v. Consolidated Gas Co.*, 212 U. S. 19, 48 (1909).

¹⁰⁵ *Stanislaus County v. San Joaquin Co.*, 192 U. S. 201, 213, 216 (1904); *Knoxville v. Knoxville Water Co.*, 212 U. S. 1, 17 (1909); *Des Moines Gas Co. v. Des Moines*, 238 U. S. 153, 172 (1915); *Denver v. Denver Union Water Co.*, 246 U. S. 178, 194 (1918); *Lincoln Gas & Elec. Co. v. Lincoln*, 250 U. S. 256, 267, 268 (1919); *Galveston Electric Co. v. Galveston* 258 U. S. 388, 393, 400 (1922); *S. W. Tel. Co. v. Pub. Serv. Comm. (Mo.)*, 262 U. S. 276, 288 (1923); *Brush Electric Co. v. Galveston*, 262 U. S. 443, 446 (1923).

¹⁰⁶ *Bluefield Co. v. Pub. Serv. Comm. (W. Va.)*, 262 U. S. 679, 692-693 (1923).

This statement is typical of the court's attitude with respect to the way in which the fair rate of return should be determined. In every case, the Supreme Court has related the rate of return to the value of the utility's property. In the last analysis, the decision as to the rate is, as emphasized above, a matter of "fair and enlightened judgment." The actual rates approved as non-confiscatory by the Supreme Court have ranged from six (6) to eight (8) per cent on the fair value of the utility's property.¹⁰⁷

The adoption of the prudent investment theory would place the determination of the percentage rate of return to be earned on the investment rate base on a cost basis. The cost of obtaining capital would be taken as the measure of the proper rate of return. Thus Mr. Justice Brandeis, in his separate opinion in the *Southwestern Bell Telephone Company* case, said:

To give to capital embarked in public utilities the protection guaranteed by the Constitution, and to secure for the public reasonable rates, it is essential that the rate base be definite, stable, and readily ascertainable; and that the percentage to be earned on the rate base be measured by the cost, or charge, of the capital employed in the enterprise.¹⁰⁸

The cost of obtaining capital has been defined as "the amount actually demanded by investors to provide funds."¹⁰⁹ It is suggested that for existing investments a fixed rate of return should be determined. The establishment of a fixed rate of return for each individual company is held to be essential, and the application of a single uniform rate to all companies would, it is claimed, greatly

¹⁰⁷ *Stanislaus County v. San Joaquin Co.*, 192 U. S. 201, 213 (1904); *Knoxville v. Knoxville Water Co.*, 212 U. S. 1, 17 (1909); *Wilcox v. Consolidated Gas Co.*, 212 U. S. 19, 48-50 (1909); *Cedar Rapids Gas Light Co. v. Cedar Rapids*, 223 U. S. 655, 670 (1912); *Des Moines Gas Co. v. Des Moines*, 238 U. S. 153, 172 (1915); *Lincoln Gas Co. v. Lincoln*, 250 U. S. 256, 268 (1919); *Brush Electric Co. v. Galveston*, 262 U. S. 443, 446 (1923); *Bluefield Co. v. Pub. Serv. Comm. (W. Va.)*, 262 U. S. 679, 695 (1923); *Dayton-Goose Creek Ry. Co. v. United States*, 263 U. S. 458, 485-486 (1924); *McCardle v. Indianapolis Co.*, 272 U. S. 400, 420 (1926).

¹⁰⁸ *S. W. Tel. Co. v. Pub. Serv. Comm. (Mo.)*, 262 U. S. 276, 292, (1923). See also pages 291, 304-308.

¹⁰⁹ "The amount expected or agreed upon constitutes a specific element of cost exactly as the expenses for labor, materials and depreciation enter into the cost of operation." Bauer, *Effective Regulation of Public Utilities*, p. 253.

expedite systematic rate regulation.¹¹⁰ So far as existing investments are concerned seven per cent is said to constitute a just and equitable rate.¹¹¹ This rate, once established, would become fixed and unchangeable for the future.¹¹²

The only way by which rate making can be put upon a systematic and workable basis is to have all factors definitely determined, based upon the cost actually incurred, and placed under accounting control. If the return actually demanded by those who furnish capital, is allowed in the rates as paid to the security holders, then this is all that is necessary. Investors should get what they expected; neither more nor less. The return would become virtually a contractual matter.¹¹³

So far as concerns securities upon which the return is fixed by contract, as bonds and preferred stocks, the application of this program would seem to present no serious difficulties. But it would be difficult, if not impossible, to ascertain what rate of return was expected by those who invested in common stocks a number of years ago. The rate to be allowed on future investments would be determined by the market conditions at the time of the investment; but there would be no readjustment of the return on past investments.¹¹⁴ This whole plan is based upon the assumption that the majority of the utility's capitalization consists of bonds and preferred stocks carrying stipulated interest and dividend rates. The difficulties in the way of applying any such policy to common

¹¹⁰ *Ibid.*, pp. 254-256.

¹¹¹ *Ibid.*, pp. 256-258.

¹¹² *Ibid.*

¹¹³ *Ibid.*, p. 259.

¹¹⁴ "If a given company now needs \$10,000,000, it must meet the present requirements as to a return, and none of the existing investment will be affected by the rate that must be paid for the new money. If the market at the moment calls for 6% on the particular form of securities offered, it must be paid, and fixes once for all the cost of future return payable upon the new \$10,000,000, unless it is refunded on another basis. If subsequently, further funds are needed and the interest rate has declined, the reduction does not change the rate payable on the preceding \$10,000,000 and in turn will not be affected by another rate when still more capital is to be provided later. At any point, the rate of return on new investment is a fixed element in the market that cannot be avoided, and it remains fixed for the lifetime of the security. But it applies strictly only to the particular transaction and does not alter the equally fixed rates placed upon all the successive investments. At every point the particular conditions control and the investors will provide the necessary funds, if they have the assurance, through the rate-making machinery, that they will actually receive the return agreed upon." *Ibid.*, p. 260.

stock in its present form have been recognized.¹¹⁵ It has, therefore, been suggested that common stock be transformed into stock with a fixed dividend rate, and be issuable at a discount, if necessary.¹¹⁶ If the form of the common stock were not modified, the commissions could, it is said, fix a definite rate of return for the future, and the rights of the earlier issues would be distinguished from those of subsequent issues, making one or the other, in effect, a preferred issue.¹¹⁷ As though recognizing that any such program would be clearly unworkable, the argument is advanced that common stock is in reality only a negligible factor,¹¹⁸ that common stock is seldom used in contemporary financing,¹¹⁹ and that in the future capital will be raised chiefly by bonds and preferred stocks.¹²⁰

The Massachusetts practice relative to the determination of the percentage rate of return which should be permitted has been extremely vague. The rate of return is usually mentioned only after the amount of return has been specified. Furthermore since there is no definite finding as to the rate base, it is impossible to say to what the percentage rate of return on the fair value has amounted.¹²¹ The nominal percentage rate of return allowed on the capitalization, or on the capitalization plus paid-in premiums, has frequently been very high.¹²² There has been no attempt in Massachusetts to hold all companies to the same rate of return. On the contrary, their policy has contemplated that different com-

¹¹⁵ Bauer, *Effective Regulation of Public Utilities*, p. 267.

¹¹⁶ *Ibid.*, p. 268.

¹¹⁷ *Ibid.*, pp. 270-273.

¹¹⁸ "Our idea of common stock harks back to unregulated and speculative business, and does not square with the underlying notions of regulation, however vaguely defined and unsatisfactorily carried out. Common stock is viewed generally as a risk bearer, protecting bondholders and preferred stockholders from the fluctuations and hazards of the business. But this conception does not correspond with the facts which do or should control in the regulated enterprises. The risk element or the speculative factor has been largely eliminated, and all security owners are in reality treated as public creditors. All are entitled to a fair return and, within the limits of what the traffic will bear, are practically guaranteed the return." *Ibid.*, p. 271.

¹¹⁹ This is certainly not the case with the Massachusetts utilities. Cf. Appendix, Tables I-IV.

¹²⁰ Bauer, *Effective Regulation of Public Utilities*, pp. 272-273.

¹²¹ *Supra*, pp. 143 *et seq.*

¹²² Cf. Appendix, Table V.

panies should be permitted to earn differing rates of return. The "cost of obtaining capital" idea is reflected in the avowed and fundamental policy of the Massachusetts commission to permit the utilities to earn such return as may be necessary to enable the company to market additional securities at or above par.¹²³ Where the company's securities are selling so far above par that there is no question as to its ability to raise additional capital upon favorable terms, the commission has tended to measure the fair percentage rate of return by reference to the yield on the market value of the company's securities, interest rates on savings, etc.¹²⁴ It is impossible to specify any rate, or small range of rates, which Massachusetts commissions have considered fair: six per cent was suggested in two recent cases, and eight per cent in another.¹²⁵

The Massachusetts Policy Again

This brief comparative survey of rate regulation under the federal present fair value rule and the Massachusetts policy, and as it would be under the prudent investment theory suffices to bring out the points at which the Massachusetts practice conforms to, and departs from, the other two theories. On the whole, there are more points of resemblance between the Massachusetts policy and the prudent investment theory than between the former and the federal present fair value rule; but it is perfectly obvious that Massachusetts has not adhered to the prudent investment theory as advanced by any of its recognized proponents.

The most striking difference between the Massachusetts practice and the prudent investment theory is to be found in the matter of the appropriate rate base. The prime reason why the prudent investment theory has been advanced and its chief claim to consideration are that it proposes to substitute, for the present shifting rate base, a fixed and definite rate base which can be readily and with certainty ascertained. The following quotations are particularly pertinent:

¹²³ *Supra*, p. 154.

¹²⁴ *Supra*, p. 154.

¹²⁵ *Customers v. Worcester Electric Light Co.*, P. U. R. 1927C, 705 (1927); *Customers v. Cambridge Electric Light Co.*, P. U. R. 1928C, 24, 27 (1928); *Re New Eng. Tel. & Tel. Co.*, P. U. R. 1925E, 739 (1925).

¹²³ *Supra*, p. 154.

¹²⁴ *Supra*, p. 154.

The chief difficulty with regulation is: We have been trying to fix rates without a definite rate base. The rights of the companies and the public have not been precisely defined, nor have adequate administration provisions been made to preserve the rights through manageable rate structures.¹²⁶

The fundamental prerequisite of effective regulation is a rate base which will not fluctuate with changing prices and conditions of operation.¹²⁷

Attention has been called to the failure of the Massachusetts commissions to make any finding as to the appropriate rate base in the vast majority of cases. No attempt has been made to present any basis upon which the respective rights of the companies and the public might be weighed. Hence, in the matter of vagueness and uncertainty, it would seem that the Massachusetts practice has been a more serious offender against the fundamentals of the prudent investment theory than the federal present fair value rule which has been made the object of attack and ridicule both by the Massachusetts commission and the advocates of prudent investment.

Coming to the consideration of various elements of value, the treatment of land is the first item which furnishes valid grounds for comparison. Here the Massachusetts policy and the prudent investment theory are in agreement as to the desirability of including land only at its actual original cost. The Massachusetts policy is in opposition to both the Supreme Court doctrine and the prudent investment theory in refusing to admit reinvested earnings as a part of the investment entitled to earn a return. Allowance for working capital has almost invariably been included under the Supreme Court doctrine and has been acknowledged to be a proper part of investment by the advocates of the prudent investment theory; but only once has it been specifically included by a Massachusetts commission. Elements of going concern value, accepted both by the advocates of present fair value and, to a less extent, by the prudent investment school, have, almost without exception, been rejected by the Massachusetts regulatory bodies. Exactly the

¹²⁶ Bauer, "The Problem of Effective Regulation," *Harv. Bus. R.*, V (October, 1926), 68, 71.

¹²⁷ *Idem*, *Effective Regulation of Public Utilities*, p. 104.

same thing may be said with regard to most of the items coming under the head of overhead charges. In their refusal to recognize the propriety of allowing appreciation in values to augment the basis upon which a utility should be permitted to earn a return, the Massachusetts policy and the prudent investment theorists are in agreement. While superficially the treatment accorded accrued depreciation differs under the Massachusetts practice and the prudent investment theory, the ultimate effect upon the dividends of investors would probably be very similar. Finally, in the determination of the fair percentage rate of return, the practice of the Massachusetts commission differs from the approved procedure under the federal present fair value rule and the prudent investment theory; and these latter two differ also from each other.

The inevitable conclusion from this comparative sketch must be that there are more points of difference between the Massachusetts practice and the prudent investment theory than there are points of resemblance; and that those who have held up Massachusetts regulation as an example of the application of the prudent investment theory are in error, if the theory of prudent investment is employed in any strictly defined sense.

CHAPTER VI

CRITICAL APPRAISAL OF PUBLIC UTILITY REGULATION IN MASSACHUSETTS

Introduction

THE historical development of the Massachusetts policy relative to the regulation of the security issues and rates of public service companies has been presented. The administrative policies evolved by the Massachusetts commissions in their regulation of the rates and charges of public utilities have been analyzed, and compared with rate regulation under the Supreme Court doctrine of present fair value, and as it would be under a strict application of the prudent investment theory. While it is obviously impossible in any study as brief as the present one to present a full and complete analysis of all phases of rate regulation under the federal present fair value rule, the prudent investment theory, and the so-called Massachusetts rule, it is hoped that the discussion of the Massachusetts policies has been sufficiently detailed, and that the samples selected from the present fair value rule and the prudent investment theory have been sufficiently representative to enable one to appraise accurately and to criticize fairly the Massachusetts policy and its application.

There are several questions that arise at the conclusion of this study. No judgment has yet been expressed as to the effectiveness of the control exercised over the issue of securities. During the course of the study, queries have been raised as to the legal and economic validity of various phases of the Massachusetts regulatory practices. And, finally, there is the question concerning the necessity or advisability of modification or changes in the laws or policies relative to the commission regulation of rates.

Effectiveness of Control over Security Issues

The control exercised over the issuance of securities of Massachusetts utilities has been quite effective in accomplishing the ap-

proximate purpose of that regulation; to wit, keeping the capitalization of Massachusetts utilities at a minimum.¹ This policy has been successful in preventing overcapitalization among Massachusetts companies;² indeed most of the utilities are undercapitalized in that the present value of their property is quite frequently considerably in excess of the par value of their outstanding securities.³

The effectiveness of the commission control over security issues has been somewhat impaired by the lack of jurisdiction over the amount of floating indebtedness that may be incurred by public service companies. The laws relative to the issuance of securities and the commissions' policies in respect thereto have at times compelled the managers of utilities to resort to this method of financing, especially when the impaired credit conditions of the utility made it impossible to issue stock at or above par. The result has been that the capital structures of many of the utilities have at times contained a wholly unwieldy and disproportionate amount of floating indebtedness.⁴ The absence of restrictions upon the power of public service corporations to incur floating indebtedness has resulted in companies depending upon short-time loans to raise capital needed for improvements and extensions; and at the maturity of such loans, the utility has appealed to the regulatory authorities for permission to fund such floating indebtedness in stocks or bonds. To avoid a disruption of service which would result from refusal to comply, the regulatory commission has been virtually forced to give its assent to the inclusion of such expenditures in the permanent capitalization of the company without having had the opportunity to pass upon the propriety of the purposes for which the indebtedness was incurred.⁵

¹ *Supra*, pp. 76 *et seq.*

² *Supra*, p. 84.

³ Ann. Rep. Mass. Dept. Public Utilities (Nov. 30, 1926), pp. 10-11.

⁴ *Blue Hill Rate Case*, 3d Ann. Rep. Mass. P. S. C. 52, 60-61, P. U. R. 1915E, 370, 382 (1915); *Massachusetts Northeastern Case*, 4th Ann. Rep. Mass. P. S. C. 122, 127, P. U. R. 1917A, 331, 338 (1916). Cf. also Appendix, Tables I-IV.

⁵ The outstanding example of the ineffectiveness of the Massachusetts regulation to restrict the capitalization of companies under its jurisdiction is furnished by the experience of the Massachusetts authorities with the New York, New Haven & Hartford Railroad. Cf. *Re N. Y. N. H. & H. R. Co.*, 6th Ann. Rep. Mass. P. S. C. 353, P. U. R. 1918C, 810 (1918).

There has been a marked difference of opinion as to whether the Massachusetts regulation of security issues has been successful in attaining its ultimate purpose,—the purpose of keeping the capital charges, and hence the cost of the service to the consumer, at the minimum consonant with satisfactory service.⁶ Reference is had here to the effect of restrictions placed upon the increase of the capital stock of a utility, particularly to those laws which have required the issuance of new securities at a premium.⁷ The consensus of informed opinion on the question appears to be that the compulsory issue of stock at a price above par creates, in effect, a new par by which the reasonableness of the future earnings of the company must be measured; that since all stock must be accorded the same dividends, this amounts to recognizing all previous issues to be on an equivalent basis to the premium basis of the most recent issue; and that any reduction in rates which would cause the market value of the securities to fall below the issue price previously approved by the commission would expose the regulatory authorities to the charge of bad faith and result in the impairment of the utility's credit.⁸ It seems clear that the remnant of the so-called "anti-stock-watering" laws of 1894 which requires that the securities be issued at a price which is not "so low as to be inconsistent with the public interest" interferes with the commission regulation of rates, and tends to prevent reductions in rates which might otherwise be possible. At least two members of the Massachusetts Department of Public Utilities have gone on record as opposed to requiring public service companies to issue securities at a premium.⁹

There may be some difference of opinion as to whether the absence of commission jurisdiction over floating indebtedness actually impairs the effectiveness of control over security issues. It is, of course, essential that the companies be free to incur expenditures for improvements and extensions which, in the opinion of the directors, may become necessary; and if short-term securities could not be issued freely, there might result a serious impairment of the utilities' ability to render adequate and efficient service.

⁶ *Supra*, pp. 76 *et seq.*

⁷ *Supra*, pp. 28-58.

⁸ *Supra*, pp. 40-43, 81-83.

⁹ Special report of the Department of Public Utilities relative to the raising by gas and electric companies of new capital as needed. Mass. House Document 1150 of 1927.

Suggested Changes in the Laws Governing the Issuance of Securities

The most frequently suggested change in the laws governing the issuance of securities by public service companies has been the proposed explicit recognition of the right of the utilities to issue new securities at any price not less than par. The present interpretation of the law which authorizes the commissioners to withhold their approval of any issue if they think the price fixed by the directors "so low as to be inconsistent with the public interest" has already been discussed.¹⁰ There is good reason to believe that this provision of the law works to the disadvantage of both the public and the companies. In its report to the General Court in March, 1927, although it had no good word to say for the law, the Department of Public Utilities declined to recommend its repeal until such time as the legal validity of the Massachusetts policy of rate regulation should be passed upon by the federal Supreme Court.¹¹ This reasoning does not, however, appear to justify a delay in repealing a law which works to the disadvantage of all parties concerned.

Mention has already been made of the enactment in 1922 of a measure permitting gas, electric light, and water companies, with the permission of the Department of Public Utilities, to issue securities at less than par when it is not otherwise possible to dispose of them.¹² Prior to the enactment of this law, a gas, electric light, or water company, unable to sell its stock at or above par was

¹⁰ Mass. G. L., c. 159, § 50; c. 164, § 18. *Supra*, p. 54.

¹¹ "As to the so-called premium law; i.e., the statute that requires stock to be issued at a price which, in the opinion of this Department, is not so low as to be inconsistent with the public interest, Messrs. Attwill and Wells adhere to their views expressed in the report of 1922, that this statute, in practical operation, does not tend to keep the rates low, but rather the reverse, and that it ought to be repealed. The other commissioners feel, however, that whatever advantages or disadvantages may be urged in relation to this statute, it is better to leave the statute as it is until such time as it is determined whether or not our method of regulation is still applicable under the decisions of the United States Supreme Court and it is found desirable to make some general rearrangement in relation to the capitalization and regulation of gas and electric companies." Mass. House Document 1150 of 1927.

¹² *Supra*, p. 58.

compelled to go into debt to raise any capital that might be needed.

The legal restraint upon the issue of stock for less than its par value in cash inevitably led to unfortunate results in particular cases where the credit of the corporation was temporarily impaired, and was responsible for the large and unwieldy debt, particularly floating debt, incurred by some of the Massachusetts utilities.¹³ Thus it would appear to be advisable, from the point of view of the public as well as that of the corporation, to extend to other public service companies the right to issue stock at less than par, when approved by the department as necessary in the public interest.

The enactment of a law permitting the capitalization of premiums paid in to the corporate treasury, on the vote of a majority in interest of the stockholders, was sought by the gas and electric light companies in 1921 and again in 1927. Two chief reasons were urged in behalf of such a measure: that the market, particularly the local market, for public utility securities would be widened by the reduction in the market price of the securities; that the increase in the number of shares would decrease the existing disparity between the dividend rate paid on the par value of the stock and the fair rate of return upon the value of the property, and thus would avoid arousing the hostility of the public at the payment of seemingly undue dividends.¹⁴ In its report to the legislature in March, 1927, the department refused to recommend the passage of such a bill.¹⁵ Nevertheless, in December, 1927, when the

¹³ *Supra*, p. 79. Also compare Tables I-IV in the Appendix.

¹⁴ Mass. House Document 1150 of 1927.

¹⁵ "After consideration we are unanimously of the opinion that no such substantial benefit to the public, the companies, or the stockholders of the companies would result as to warrant the passage of a statute authorizing the capitalization of the premiums heretofore paid into the treasury of the companies on account of the capital stock. We doubt if it would effect any marked wider distribution of the stock, and we think no real advantage would be gained merely because the published rate of dividends upon the par value of the stock would consequently be reduced. While the rate of dividend would actually reflect the percentage of dividend paid upon the amount that had been paid into the treasury of the corporation on account of the stock, it would not indicate the rate of interest upon either the book cost or the fair value of the property. Thus, those companies which have adopted in the past a

department was endeavoring to secure the passage of a law providing for the establishment of contractual relations between the state and the utilities, binding the utilities to accept the regulation of rates upon such basis as should be established by the General Court, the utilities which should enter into such contract were offered the right to capitalize any paid-in premiums.¹⁶

This question of the capitalization of premiums is not of major importance since the Massachusetts commissions have apparently recognized paid-in premiums as a part of the investment, and have permitted the companies to earn a return thereon.¹⁷ The reasons urged in behalf of the capitalization of paid-in premiums indicate that the enactment of such a law would confer some benefit on the companies concerned. The stockholders have paid the amount of the premiums into the corporate treasuries and these premiums are as much a part of their investment as the sums paid in on the principal of the stock. The right of the security holders to have their total investment capitalized would seem to be beyond dispute. The willingness of the commissioners to concede this right to utilities which should accept the proposed contract relative to the regulation of their rates clearly indicates that the capitalization of premiums cannot be contrary to the public interest. No convincing reason has been suggested for withholding from the utilities the right to capitalize paid-in premiums.

conservative policy and have ploughed substantial parts of their earnings into their plants might still be subject to the charge of paying excessive dividends, while those that had in the past distributed all or substantially all of their earnings would receive the credit of paying only reasonable dividends. We believe that a company that has in the past maintained a conservative policy by conserving its earnings and thus has improved its financial standing and credit and its ability thereby to serve the public more efficiently is entitled to the goodwill of the public, rather than a company that has adopted the policy of distributing in dividends substantially all of its earnings. No benefit will accrue to the public by the capitalization of these premiums unless such action improves the credit of the company and thus assures the public of either better service or service at a lower price. Merely capitalizing the premiums will, in our judgment, have no tendency either to give the public better service or service at a reduced cost." Mass. House Document 1150 of 1927.

Some of the statements of the department seem to suggest that the utilities are permitted to earn a return upon the fair value of their property or upon reinvested surplus, neither of which is correct. *Supra*, pp. 110, 133, 168, 179.

¹⁶ Mass. House Documents 169 and 170 of 1928. ¹⁷ *Supra*, pp. 119, 130.

At the same time that the bill permitting the capitalization of paid-in premiums was urged before the Department of Public Utilities, permission was sought to capitalize the unnecessary or excessive surplus accumulated by some of the gas and electric companies from their earnings.¹⁸ Inasmuch as the Massachusetts commissions have consistently denied the right of utilities to earn a return upon property paid for out of earnings, it is not surprising that the department refused to give its approval to such a measure.¹⁹ The question as to the propriety of capitalizing surplus arising from reinvested earnings depends upon the propriety of permitting a public utility to earn a return upon capital provided by the reinvestment of earnings. The latter question will be considered subsequently in connection with the legal validity of certain phases of the Massachusetts policy of rate regulation. In the case of Massachusetts companies, this adjustment of capitalization would, in general, result in a closer agreement between the nominal capital of the utilities and the fair value of the utilities' properties.

The Massachusetts gas and electric light companies also sought the incorporation in the law of a provision to permit public utilities to issue no par stock.²⁰ The most significant argument, from the standpoint of Massachusetts utilities, that could be urged in behalf of such measure, would be that the so-called premium law would automatically be annulled and that utilities would be able to issue stock at any price made possible by existing market conditions, even though that price should be less than the previously established par. Since the utilities may now issue securities at less than par when the department has so approved as necessary in the public interest, there is apparently no great advantage to be gained by such an enactment. The Department of Public Utilities disapproved of the suggestion on the ground that such an act would be of no benefit to the public or company unless the repro-

¹⁸ Mass. House Document 1150 of 1927.

¹⁹ *Ibid.* However, it should be noted that, in connection with the proposed bill to establish contractual relations between each utility and the state relative to the regulation of rates, the department was willing to make a concession to those utilities that accepted its proposal by permitting the capitalization of at least a part of the surplus. *Ibid.*, 169 and 170 of 1927.

²⁰ *Ibid.*, 1150 of 1927.

duction cost less depreciation estimate be accepted as the basis for rate regulation.²¹

*Legal Validity of the Massachusetts Policy of
Rate Regulation*

There are many aspects of the Massachusetts practice of rate regulation whose legal validity might appropriately be questioned. For present purposes, however, attention will be directed to four points only: the failure of Massachusetts commissions to base rates upon the value of the utility's property; their disregard of present prices; their refusal to include the land holdings of utilities at their present value; and the denial of the utilities' right to earn a return upon property acquired from reinvested earnings. The discussion of these specific points leads to a consideration of the significance of the absence of appeals from the rulings of the Massachusetts commissions. The reasons advanced by the Massachusetts commission for the non-applicability of the federal rule and the measures proposed to relieve the Massachusetts commission from the necessity of conforming to the present fair value rule of the Supreme Court are naturally involved in the question of the legal validity of the Massachusetts procedure.

Throughout the decisions of the Supreme Court, the principle has been repeatedly stated that the reasonableness of the rates and charges of public utilities must be measured on the basis of the value of the property used and useful for the convenience of the public.²² Despite the controlling nature of the Supreme Court decisions, the Massachusetts commissions have never, so far as can be discerned from a close and careful reading of their decisions, made any attempt to regulate the rates of public service com-

²¹ "We do not approve of the passage of an act authorizing the issue of stock by public utility companies without par value. We see no value in the suggestion, except it be conceded that the regulation of the rates of public utilities is to be based hereafter solely on the cost of reproduction of the property less actual depreciation. Until such time as this becomes the accepted rule in this commonwealth, we think the suggestion of non-par stock unwise." *Ibid.*, 1150 of 1927.

Even with no par stock, it would be relatively easy for Massachusetts to regulate utilities on the prudent investment base, since, for that purpose, the control and supervision of a utility's accounts is the main consideration.

²² *Supra*, pp. 160 *et seq.*

panies under their jurisdiction in accordance with the "present fair value" of the company's property. In the few instances in which any rate base has been suggested, it has been self-evident that it has been of no material importance in aiding the commission to decide upon the reasonable rate.²³ Under the Massachusetts procedure, the term "reasonable rate" refers, not to a return upon the "present fair value" of the utility's property used and useful in the public service, but to the rate necessary to maintain the credit of the utility so as to enable the company to sell additional securities at or above par.²⁴ In the failure to base rates upon the value of the utility's property, the Massachusetts commissions have departed radically from the procedure approved by the Supreme Court.

The Supreme Court has been equally insistent in holding that it is the present value of the utility's property, the value as of the date of regulation of the rates, which must be accepted as the chief criterion of the reasonableness of the rates established.²⁵ And it has reiterated many times that the present value of the utility's property cannot be ascertained except by giving due weight to the prices of materials and wages as of the valuation date.²⁶ Nevertheless the Massachusetts commissions have never made any allowance for changes in the general level of prices, except in so far as the changing prices have caused changes in the operating expenses of the utility.²⁷

No adjustment has been made in the rate base to allow for changes in the price level, since the Massachusetts commission has accepted the aggregate par value of the outstanding securities plus the paid-in premiums as the measure of the capital honestly and prudently invested.²⁸ Furthermore there appear to have been

²³ *Supra*, pp. 147 *et seq.*

²⁴ *Supra*, pp. 106, 154 *et seq.*

²⁵ *Supra*, pp. 161 *et seq.*

²⁶ *Supra*, pp. 163 *et seq.*

²⁷ *Supra*, p. 153.

²⁸ *Supra*, p. 119. The statement of the Supreme Court in *McCardle v. Indianapolis Co.* appears to be in the nature of a denial of the propriety of using original cost as a measure of present value when there has been a change in the applicable prices subsequent to the construction of the property.

"Undoubtedly, the reasonable cost of a system of water works, well-planned and efficient for the public service, is good evidence of its value *at the time of construction*. And such actual cost will continue fairly well to measure the

no changes in the permitted percentage rate of return to compensate for changes in the level of applicable prices. This failure to take account of changes in the level of prices of materials and labor is, in some respects, the most flagrant example of the manner in which the Massachusetts commissions have ignored the method sanctioned by the Supreme Court.

In the *Minnesota Rate Cases*, the Supreme Court laid down the rule that, for rate-making purposes, a utility's land holdings should be included at their present value as measured by the market value of similar and adjacent lands.²⁹ In this respect, also, the Massachusetts commissions have refused to conform to the Supreme Court doctrine. Under the so-called Massachusetts rule, land has been taken at its original cost rather than at its present value.³⁰ The right of a public service company to earn a return upon the appreciated value of its real estate holdings has been repeatedly denied.

The treatment of reinvested earnings by the Massachusetts commissions has already been given rather extended consideration.³¹ Not only have the commissions refused to permit the issuance of securities to represent reinvested surplus, but this surplus has been held to represent no part of the investment upon which the right of the utility to earn a return has been recognized.³² The Massachusetts Supreme Judicial Court in one instance at least recorded its disapproval of the practice of the Massachusetts commissions in this respect.³³ The treatment of property purchased from reinvested earnings is in direct contravention of the policy approved by the federal Supreme Court. Under the federal rule, property constructed out of earnings belongs to the utility and is entitled to receive a fair return from the rates charged for the service just as if the property had been purchased with the proceeds of the sale of securities.³⁴

amount to be attributed to the physical elements of the property *so long as there is no change in the level of applicable prices.*" (Italics supplied.) 272 U. S. 400, 411 (1923).

²⁹ *Supra*, p. 174.

³⁰ *Supra*, pp. 131, 178.

³¹ *Supra*, pp. 23, 133 *et seq.*

³² *Supra*, pp. 23, 133 *et seq.*

³³ *Fall River Gas Works v. Bd. of Gas and Elec. Lt. Comrs.* 214 Mass. 529 (1913). Cf. *supra*, p. 23, n. 12, p. 136.

³⁴ *Supra*, p. 178. Cf. *Bd. of Comms. (N. J.) v. N. Y. Tel. Co.*, 271 U. S. 23,

Despite the seeming illegality of several phases of the Massachusetts regulatory practice, there had been no appeals to the federal courts from the rulings of the Massachusetts commissions until 1927, when the Worcester Electric Light Company secured a temporary injunction from the United States District Court relieving it of the necessity of complying with the order of the commission reducing its rates.³⁵ The question immediately arises as to why the decisions of the Massachusetts commissions were so long uncontested by the utilities affected. An examination of the dividends paid by some of the local gas and electric light companies supplies one possible clue.³⁶ There is no denying the fact that, taken all in all, the Massachusetts utilities have been accorded quite liberal treatment. The companies have not been held down rigidly to what would be merely a fair return upon the investment, as defined by the Massachusetts commissions.³⁷ The normal conclusion must be that the utilities have, in the past, received more liberal treatment from the Massachusetts commissions than

31-32 (1926); *San Joaquin Co. v. Stanislaus County*, 233 U. S. 454, 459 (1914); *Gas Light Co. v. Cedar Rapids*, 144 Ia. 426, 434 (1909), affirmed 223 U. S. 655 (1912); *Consolidated Gas Co. v. New York*, 157 Fed. 849, 858 (1907), affirmed 212 U. S. 19 (1909); *Ames v. Union Pacific Railway Co.*, 64 Fed. 165, 176 (1894).

³⁵ *Worcester Elec. Lt. Co. v. Attwill*, P. U. R. 1927E, 796.

In granting the injunction, the United States District Court said:

"The rule adopted in such cases by the Supreme Court of the United States is that there should be a fair return on the present value of the property used by the company. . . .

"It is apparent from the foregoing quotations that this way of computing the value of the property upon which return is to be allowed was not followed. The decision of the Department is contrary to the decisions of the Supreme Court of the United States." P. U. R. 1927E, 796, 798 (1927).

³⁶ Cf. Appendix A, Table V.

³⁷ In conversation with the author, one executive connected with various Massachusetts utilities stated that, in his opinion, the *Worcester Electric Light Case* (P. U. R. 1927C, 705) was the first in which a Massachusetts commission had fixed a rate so low as not to yield a fair return upon the total investment (investment being defined as total cost of the utility's fixed capital from whatever source derived). He explained at the same time that, in his opinion, the failure of the Massachusetts utilities to seek a rate base upon a reproduction cost new less depreciation estimate was due to the fact that the largest net return could be secured by charging rates which could be justified upon the investment basis, so that there has been no motive to seek a recognition of the higher rate base by the commission.

they could have expected from an appeal to the federal courts, or, at least, that they could not hope to receive a sufficient increase in rates by carrying an appeal to the federal courts to make it worth while to undergo the expense of the necessary court proceedings.³⁸

At one time or another, the Massachusetts commissions have advanced several reasons why they have held the federal rule to be non-applicable to the regulation of rates of utilities under their jurisdiction. In the first place, the Massachusetts concept of public utilities as agents of the state has been suggested as having some influence upon the type of regulation applicable to their public service companies.³⁹ It has been said that when a utility incorporates in the state it enters into an implied contract, whereby, in exchange for certain valuable rights, it consents to accept, without opposition or resistance, the form of regulation followed in Massachusetts.⁴⁰ The fact that all the securities of Massachusetts

³⁸ And if the utilities have received such favorable treatment that none of them has thought it worth while to contest a ruling of the commissions, it must have inevitably happened in some instances at least that the utilities received higher rates than were necessary to enable them to earn a fair return—for no regulatory body is so infallible as to be able to do exact justice on every occasion. It must have inevitably happened that on some occasions the rulings of the commissions were so generous to the company that they were detrimental to the interests of the consuming public.

One other reason has come to the author's attention to account for the absence of appeals from the rulings of Massachusetts commissions; namely, that until recently the stock of the local utilities was owned by individuals living in the community served, and that the desire to avoid the hostility and animosity of their townspeople prevented the owners of the utilities from insisting upon their full legal rights. While there may be some truth in this suggestion with regard to particular instances, it would appear that the reason advanced in the text is a somewhat closer approach to the probable facts of the situation.

³⁹ "The law under which public utility corporations have been organized and regulated in Massachusetts for a long period in its history may also have an influence in the determination as to what extent the rule applicable to public utilities in other jurisdictions applies in this. The conception of the people of this commonwealth of the relationship of public utilities to the public has been in contrast to that of the public in other states. Thus, early in our history, the manner in which the capital stock of utilities should be issued and the rates charged by the utilities were regulated." Mass. House Document 1150 of 1927.

Cf. also *Customers v. Worcester Elec. Lt. Co.*, P. U. R. 1927C, 705-709 (1927).

⁴⁰ "It may be also argued that when a public utility enters in business in Mas-

utilities have been issued subject to the approval of the regulatory commissions as to the amount, issue price, and purpose of the issue, so that the amount of the actual investment is possible of ready and accurate ascertainment, has been said to justify the use of that investment as the basis for the calculation of the rates to which the utility may be entitled.⁴¹ In their regulation of the rates

sachusetts it consents, as a matter of law, to have its rates here fixed by the rule which then obtained and has obtained for a long time in the Commonwealth." *Re New Eng. Tel. & Tel. Co.*, P. U. R. 1925E, 739, 744 (1925).

"The public utility corporations in this state are given the right to organize to perform a public function which the public might otherwise undertake itself. The state gives to them permits to use the public highways; it grants to them the privilege of taking private property by the exercise of the sovereign power of eminent domain and to a large extent protects them from adverse and unwise competition. In exchange for these unusual privileges the public of Massachusetts have assumed that they had the right to regulate the utilities to such an extent as would assure their obtaining the public service furnished by the utilities at as cheap a rate as the capital invested in the service could reasonably be expected to produce." Mass. House Document 1150 of 1927.

⁴¹ Compare the separate opinion of Commissioner Stone in the Worcester Electric Light case, P. U. R. 1927C, 705, 717-718 (1927).

Nevertheless, the possibility of accurately ascertaining the investment would seem to be no valid excuse for a failure to ascertain the present fair value of the utility's property. Thus, in the *Minnesota Rate Cases*, the Supreme Court stated that the property value for rate-making purposes was not limited to the capital investment. 230 U. S. 352, 454 (1913).

In the *Bluefield Case*, the Supreme Court quoted from the report of the Public Service Commission of West Virginia as follows: ". . . The books of the company show a total gross investment since its organization, of \$407,882.00, and there has been charged off for depreciation from year to year the total sum of \$83,445.00, leaving a net investment of \$324,427.00. . . . From an examination of the books . . . it appears that the records of the company have been remarkably well kept and preserved. It, therefore, seems that when a plant is developed under these conditions the net investment which of course means the total gross investment less depreciation is the very best basis of valuation for rate making purposes and that the other methods above referred to should be used only when it is impossible to arrive at the true investment. Therefore, after making due allowance for capital necessary for the conduct of the business and considering the plant as a going concern, it is the opinion of the commission that the fair value for the purpose of determining reasonable and just rates in this case of the property of the applicant company, used by it in the public service . . . is the sum of \$360,000, which sum is hereby fixed and determined by the Commission to be the fair present value for the said purpose of determining the reasonable and just rates in this case." 262 U. S. 679, 687-688 (1923). Despite the fact that the investment was accurately ascertainable the Supreme Court reversed the finding of the West Virginia court which had upheld the commission's decision.

of utilities under their jurisdiction, the Massachusetts commissions have regularly concerned themselves solely with fixing the maximum rates; and it has been argued that if the utility makes rates lower than the maximum rate established by the commission, the utility is estopped from alleging that the rates fixed by regulation are confiscatory.⁴² One reason frequently urged as exempting the Massachusetts commissions from the necessity of conforming to the present fair value rule approved by the Supreme Court, has been the fact that the franchises and easements of the utilities in the public highways are subject to revocation by the state, and that the charters of such corporations may be amended or repealed at the pleasure of the state.⁴³ No reasons have been advanced as to why the fact of the charters, franchises, and easements being revocable should make any difference in the applicability of the Supreme Court doctrine in Massachusetts.

Declaring that any attempt to apply the present fair value doctrine in Massachusetts would result in conditions "too cumber-

Hence it would appear that strict regulation of security issues does not relieve the Massachusetts commission of the necessity of complying with the federal present fair value doctrine.

⁴² Thus Commissioner Wells stated of the Worcester Electric Light case:

"What the effect of the Worcester Electric Light rate case is going to be in the courts we don't know, but the important factor in that case is the fact that we dealt only with the maximum rate and that the company voluntarily—in spite of their raising the theory of confiscation—the company voluntarily is selling a very substantial part of their current at less than the maximum rate fixed by the Commission." *Proceedings of National Association of Railroad & Utilities Commissioners*, p. 114 (1927).

The weakness of such an argument when the utility has been compelled to establish the lower rates as a result of competitive forces has been suggested above. *Supra*, p. 150.

⁴³ "In this Commonwealth the permits issued to gas and electric companies to use the highways for their distribution equipment are subject to revocation by the state at any time. Such companies have been given no permanent rights in the highways and their use of them is at the will of the Commonwealth. The very charters of the companies may be altered, amended, or repealed at any time by the Commonwealth. We cannot believe that the property of such companies situate in the public highways, subject at any time to an order of removal by the Commonwealth, can or should, for rate-making purposes, be subject to any such rule of law as that which the company advances." *Customers v. Worcester Elec. Lt. Co.*, P. U. R. 1927C, 705, 708 (1927). Cf. also *Re New Eng. Tel. & Tel. Co.*, P. U. R. 1925E, 739, 744 (1925). Mass. House Document 1150 of 1927.

some, inefficient and expensive to be tolerated," the Massachusetts Department of Public Utilities has suggested measures to relieve them from what they regard as the menace of the Supreme Court doctrine.⁴⁴ Two alternatives have been suggested: public ownership of such utilities; and the establishment of contractual relationship between the utility and the state regarding the regulation of rates.⁴⁵ One bill,⁴⁶ proposed in 1928, was avowedly directed against foreign holding companies that had bought control in the local operating companies at high prices and expected "to

⁴⁴ "If, under our present statutes, it shall be determined by the United States Supreme Court, that gas and electric companies of this state are entitled, as a matter of law, to charge rates based upon the fair value of their property employed in the public service, and that in ascertaining such value the value of the plant and of the structures and equipment in or upon the public highway is to be taken at the reproduction cost less the then actual depreciation, and that the findings of fact in relation to these values are subject to review in each instance by the federal court, we are confident that the people of this state will conclude that the regulation of the rates of the gas and electric companies under such conditions is too cumbersome, inefficient and expensive to be tolerated." Mass. House Document 1150 of 1927.

⁴⁵ The Department of Public Utilities, in its recommendations for legislation on the subject in 1928, gave the following explanation of a proposed bill on the subject:

"As a consequence we feel that the time is now ripe to enact legislation by which the companies engaged in the sale of gas and electricity in this Commonwealth shall enter into a contract with the Commonwealth so that their rates may be speedily and effectually regulated with fairness both to the company and the public, and whereby the investor will be guaranteed that in no event shall rates be so regulated that he cannot sell his securities to obtain his original investment. We accordingly recommend the enactment of a bill to accomplish this result.

"Our proposed bill provides for a readjustment of the capital of any company which applies for such readjustment upon a basis which permits the capitalization of the premiums heretofore paid in and any earnings that have been plowed into the property at the expense of the stockholder who has not received on the average a return on his investment of 7 per cent, provided also that it shall not be capitalized beyond its fair value as determined by the Department or beyond the amount expended for its property used and useful in the transaction of its business. The adjustment of its capital in accordance with the bill shall effect a contract with the Commonwealth by which the company agrees that it may be regulated by the Commonwealth in such manner as the Commonwealth may determine, so long as such regulation does not prevent it from paying dividends upon its stock adequate to maintain such stock at par.

"The bill also provides that as to those companies which do not take advantage of the bill, the provisions of our statutes which require a municipality to

increase the rates for service and the dividend payments of the local companies, and that they would be protected in this increase by the Supreme Court of the United States under its construction of the Federal Constitution."⁴⁷

Economic Validity of the Massachusetts Policy of Rate Regulation

Most of the aspects of the Massachusetts regulatory practice discussed under the heading of legal validity could also be considered appropriately in connection with the economic validity of the Massachusetts policy. Thus, for example, the propriety of giving considerable influence to present prices in arriving at the rate base, the inclusion of land at its present value as measured by the market prices of similar and adjacent land, and the advisability of permitting utilities to earn a return upon property acquired by the reinvestment of earnings could, on economic grounds, be justified to the greater or less satisfaction of the reader, depending upon whether he is an advocate of the federal present fair value rule or of the prudent investment and analogous theories.

purchase, if the company elects to sell, the latter's property located in the town before it can engage in the business of the sale of gas or electricity, shall not apply.

"In addition the bill provides that as to such companies as do not elect to come under its provision, they shall not be given the power to take property by eminent domain and they shall not have the power to increase their capital stock and bonds beyond what they are at present. [This paragraph was later stricken from the bill.]

"The bill also provides that all companies hereafter organized shall be subject to the provisions of the act and that their organization shall effect a contract with the Commonwealth to that effect." Mass. House Document 169 of 1928.

⁴⁶ Mass. House Document 170 of 1928. "An Act Relative to the Regulation and Supervision of Gas and Electric Companies."

The legislative Committee on Power and Light has reported unfavorably upon the proposed bill, so the proposed legislation has been dropped for the present. The companies opposed the measure as unconstitutional and unsound, and in this opinion, they have apparently been upheld by the committee.

⁴⁷ Mass. House Document 169 of 1928.

It has been suggested by one conversant with the Massachusetts situation that the proposed bill, directed against foreign holding companies, had actually resulted in frightening local investors in the Massachusetts utilities into selling out their holdings to these same foreign holding companies more readily than they otherwise would have done.

Perhaps the most serious indictment that can be urged against the Massachusetts policy of rate regulation is the indefiniteness of the commission's decisions. This indefiniteness of procedure and result is the outstanding characteristic of the regulation of rates in Massachusetts. Most of this lack of certainty appears to arise from the failure of the Massachusetts commissions to address themselves to the task of determining a specific rate base or value of the utility's property,—a failing that has hitherto been emphasized repeatedly. The formal reports of the commission's decisions do not disclose the facts upon which they have based their orders. Even where a rate base has been tentatively suggested, there has been little discernible connection between it and the evidence introduced in the case, or between the so-called rate base and the return which the utility has finally been permitted to earn. The decisions suggest that the commission either fails to inform itself as to all the facts in the situation or that it does not lay all its cards on the table. Even after the commission has rendered a decision, it is impossible to discover what rate the utility is permitted to earn, or the basis upon which it is permitted to earn. In two recent cases, six per cent was discussed as a possible fair return:⁴⁸ but the only apparent reason for considering six per cent was that this is the minimum rate that has most frequently been approved by the Supreme Court; for by selecting the minimum rate likely to pass the review of the Court, the rate base upon which the utility can be said to earn a return is made a maximum. In this respect, the Massachusetts commission compares unfavorably with the commissions of many other states which are scrupulously careful to present all the evidence and facts upon which their decisions are based. Prudent investment has been said to be the primary factor in Massachusetts regulation, but there is still some question as to what is meant by this term.⁴⁹ That the regulatory commission is aware of the indefiniteness of its procedure was indicated in the report of the Department of Public Utilities to the General Court in March of 1927, in which the following statement occurred: "As pointed out in the report of the Department of January, 1922, the elements to

⁴⁸ *Customers v. Worcester Elec. Lt. Co.*, P. U. R. 1927C, 705 (1927); *Customers v. Cambridge Elec. Lt. Co.*, P. U. R. 1928C, 24 (1928).

⁴⁹ *Supra*, pp. 151 *et seq.*

be taken into account in determining the fair value, *particularly as relates to Massachusetts*, are still uncertain."⁵⁰

A second respect in which the economic validity of the Massachusetts policy may fairly be questioned is that the protection of the consuming public has been treated as a matter of secondary significance. In subordinating the protection of the consuming public from unjust rates, Massachusetts regulation has ignored the fundamental purpose which justifies the public control of private enterprise. The subordination of the public interest appears to be the inescapable result of two characteristics of this particular policy of regulation; namely, the uncertainty of procedure and indefiniteness of decision which surrounds and pervades all parts of Massachusetts regulation, and the virtual acceptance of the maintenance of the market price of the utility's stock above par as the sole criterion of reasonable rates.⁵¹

The uncertainty of procedure and indefiniteness of decision which characterize the regulation of rates in Massachusetts make it impossible for anyone to ascertain either the rate base upon which a utility is entitled to earn or the percentage rate of return which the utility is permitted to earn. This profound state of ignorance must inevitably work to the disadvantage of the public. The utility subject to regulation enjoys all the advantages of the situation, since it alone has some knowledge of the value of its property, and it alone knows what rate of return it earns upon that value under any particular schedule of rates. So long as the decisions of the regulatory board are uncontested by the utilities—and until 1927 they had gone uncontested—it is safe to assume that the utilities have suffered no serious injustice or injury. But the absence of appeals by the communities served from the decisions of the commission gives no corresponding assurance that the communities have received full justice under the commission's regulation. The public—kept in ignorance by the indefiniteness of the commission's procedure and decisions—is unable to judge for itself whether or not it is paying fair and reasonable rates.

The regulation of rates upon the principle that the utility

⁵⁰ Mass. House Document 1150 of 1927. (*Italics supplied.*)

⁵¹ *Supra*, pp. 154 *et seq.*

should earn and pay such dividends as to keep the market value of their stock somewhat above par contains no guarantee that the rates charged the public will be only such as are just and reasonable.⁵² This procedure is not adapted to fixing rates to protect the consumer against excessive charges, although it may, in general, result in maintaining the credit of the utility. Under such a program the protection of the consumer is made subordinate to the whim of the market. Market conditions, wholly unrelated to the situation of a particular utility, may quite conceivably result in the consumers being required to pay rates higher than justified by the fair cost of rendering the service.

*Suggested Changes in the Massachusetts Policy of
Rate Regulation*

For the attainment of really effective regulation, the elimination of the present vagueness and indefiniteness is the most urgently needed reform in the Massachusetts policy of rate regulation. The protection of the public and justice to the company demand that the facts upon which a commission bases its decisions be specifically and plainly stated. As indicated above, there are reasons to believe that the interests of the consuming public are more susceptible to injury by the uncertainty of the present policy than are the interests of the companies, since the latter are well able to protect themselves. The attitude of the Massachusetts commission has been that their method of regulation is superior to that followed in other states, due to their ability to dispose of cases more expeditiously. But while the efficient and expeditious handling of cases is an aim worthy of any regulatory board, it should most emphatically not be placed ahead of securing justice and equity to all the interested parties. The primary aim of protecting the consuming public in securing adequate and satisfactory service at reasonable rates should not be subordinated to, or sacrificed for, the attainment of intermediate ends, however desirable in themselves.

It is too much to hope that Massachusetts regulatory authorities will explicitly recognize the right of utilities under their juris-

⁵² *Supra*, pp. 154 *et seq.*

diction to earn a return upon the present value of all their property used in the service of the public until they are forced to do so by the Supreme Court. The conclusion appears to warrant, however, that, while stating that the companies had no right to earn upon property created from reinvested earnings, the commissions have been so generous in their decisions—at least, prior to the Worcester Electric Light rate case⁵³—that the companies, except the street railways, have actually earned a fair return upon the value of all their used and useful property, from whatever source derived.⁵⁴ Since this has actually been the case, there is no valid reason why the commission should not explicitly base the return upon the property of the company. This procedure would eliminate many of the troublesome legal questions raised by the Massachusetts policy.

⁵³ P. U. R. 1927C. 705.

⁵⁴ This opinion is based upon a close analysis of the decisions of the present and past commissions, and has been confirmed by executives of various public utilities with whom the author has talked. It is because the utilities have been permitted to earn upon property purchased by the reinvestment of earnings that they have continued to build up their surplus, being careful, of course, to charge such additions and betterments to the proper capital accounts. Despite statements of the commission to the contrary, the utilities are confident that, in the future as in the past, they will be permitted to earn upon all their property.

APPENDIX

TABLES OF STATISTICS

TABLE I

The Capital Structure of Certain Street Railway Companies¹
(000 omitted)

<i>Holyoke Street Railway Company</i>						
Capital stock	1926	1921	1915	1910	1905	1900
	\$1,342	\$1,342	\$1,342	\$1,074	\$ 700	\$ 500
Premiums on capital stock	276	276	276	23		
Preferred stock						
Funded debt	1,400	1,200	1,200	600	600	250
Loans and notes payable	5	74	63	112	166	249
<i>Massachusetts North-eastern Railway Company²</i>						
Capital stock	1,500	1,500	1,500			
Premiums on capital stock						
Preferred stock	665	665	665			
Funded debt	1,149	1,079	1,000			
Loans and notes payable	220	330	550			
<i>Middlesex & Boston Street Railway Company³</i>						
Capital stock	1,987	1,987	1,987	1,462		
Premiums on capital stock						
Preferred stock						
Funded debt	1,983	1,983	1,983	1,015		
Loans and notes payable	954	978	1,120	1,371		

¹ Sources: 32d Ann. Rep. Mass. R. C. (1900), 37th Ann. Rep. Mass. R. C. (1905), 42d Ann. Rep. Mass. R. C. (1910), 3d Ann. Rep. Mass. P. S. C. (1915), 2d Ann. Rep. Mass. D. P. U. (1921), Poor's 1927 Public Utility Section.

² From August 16, 1909 to July, 1912 it was the Haverhill & Southern New Hampshire Street Railway Company.

³ Incorporated July 24, 1907.

*Springfield Street Rail-
way Company*

Capital stock	4,655	4,655	4,708	2,808	1,958	1,458
Premiums on capital stock	279	279	185			
Preferred stock						
Funded debt	2,890	2,530	2,305	1,775	1,500	500
Loans and notes pay- able	280	555	1,340	625	192	145

*Worcester Consolidated
Street Railway
Company*

Capital stock	3,326	3,326	5,112	3,550	3,550	700
Premiums on capital stock	227	227	227			
Preferred stock	3,600	3,600 ⁴				
Funded debt	5,310	4,820	4,965	2,260	1,060	700
Loans and notes pay- able	125	837	2,348	1,291	1,525	324

⁴ The preferred stock was created and the common stock decreased from \$6,926,000 in May, 1917.

TABLE II

The Capital Structure of Certain Gas and Electric Light Companies¹

(000 omitted)

<i>Boston Consolidated</i>						
<i>Gas Company</i>	1926	1921	1915	1910	1905	1900
Capital stock	\$16,260	\$15,125	\$15,125	\$15,125	\$15,125	
Premiums on capital stock		8,893	8,893	8,893	8,893	
Preferred stock						
Funded debt ²	10,500					
Notes payable ³		750	3,356	1,193		
<i>Cambridge Gas Light</i>						
<i>Company</i>						
Capital stock	1,935	1,680	1,560	1,200	880	700
Premiums on capital stock	1,192	956	836	476	80	
Preferred stock						
Funded debt						
Notes payable	100	430	400	402	225	
<i>East Boston Gas Company⁴</i>						
Capital stock		575	575	575	220	220
Premiums on capital stock		11	11	11		
Preferred stock						
Funded debt						
Notes payable		410	280		45	
<i>Edison Illuminating Com-</i>						
<i>pany of Boston</i>						
Capital stock ⁵	46,714	22,528	20,480	15,544	11,488	3,920
Premiums on capital stock	28,915	17,919	15,563	9,841	5,307	
Preferred stock						
Funded debt		1,250	1,407	1,472	1,486	180
Notes payable	44,035	24,951	4,291	888	956	100

¹ Sources: 16th Ann. Rep. Mass. G. & E. L. C. (1900), 21st Ann. Rep. Mass. G. & E. L. C. (1905), 26th Ann. Rep. Mass. G. & E. L. C. (1910), 31st Ann. Rep. Mass. G. & E. L. C. (1915), 2d Ann. Rep. Mass. D. P. U. (1921), Poor's 1927 Public Utility Section.

² 1926 figures compiled from statements. All of the 6½% and 5½% cumulative preferred stock of the company previously outstanding called for redemption, February 1, 1927.

³ "Notes payable" includes "coupon notes" and "other notes payable."

⁴ In February, 1922, the Massachusetts Department of Public Utilities approved the plan of the Boston Consolidated to purchase the East Boston Gas Company and the Newton & Watertown Gas Company. No separate balance sheet was given for the East Boston company in 1926.

⁵ New stock issued in 1927 at 215.

*Greenfield Gas Light
Company*

Capital stock	120	83	166	96	50	50
Premiums on capital stock						
Preferred stock	83	83				
Funded debt	200	75	75	75		
Notes payable	80	244	101	50	4	

*Worcester Electric Light
Company*

Capital stock	2,400	2,000	1,400	800	600	300
Premiums on capital stock	1,658	1,438	890	290	170	
Preferred stock						
Funded debt						
Notes payable		775	60	50		

*Worcester Gas Light
Company*

Capital stock	2,050	1,400	1,400	1,000	800	500
Premiums on capital stock	851	850	850	450	250	
Preferred stock	350	164				
Funded debt	1,400	1,400				100
Notes payable	90	1,805	1,035	150	95	

TABLE III

The Capital Structure of Certain Street Railway Companies Expressed as Percentages¹

<i>Holyoke Street Railway Company</i>	1926	1921	1915	1910	1905	1900
Capital stock	44.39	46.40	46.58	59.37	47.75	50.05
Premiums on capital stock	9.13	9.54	9.58	1.27		
Preferred stock						
Funded debt	46.31	41.49	41.65	33.17	40.93	25.03
Loans and notes payable	0.16	2.56	2.18	6.19	11.32	24.92
<i>Massachusetts North-eastern Street Railway Company</i>						
Capital stock	42.44	41.97	40.38			
Premiums on capital stock						
Preferred stock	18.82	18.61	17.90			
Funded debt	32.51	30.19	26.92			
Loans and notes payable	6.23	9.23	14.80			
<i>Middlesex & Boston Street Railway Company</i>						
Capital stock	40.35	40.16	39.04	37.99		
Premiums on capital stock						
Preferred stock						
Funded debt	40.28	40.08	38.96	26.38		
Loans and notes payable	19.37	19.77	22.00	35.63		
<i>Springfield Street Railway Company</i>						
Capital stock	57.44	58.05	49.19	53.92	53.64	69.33
Premiums on capital stock	3.44	3.48	2.45			
Preferred stock						
Funded debt	35.66	31.55	30.58	34.08	41.10	23.78
Loans and notes payable	3.46	6.92	17.78	12.00	5.26	6.89

¹ Source: Table I, p. 216.

*Worcester Consolidated
Street Railway*

Capital stock	26.42	25.96	40.40	49.99	57.86	40.60
Premiums on capital stock	1.80	1.77	1.79			
Preferred stock	28.60	28.10				
Funded debt	42.18	37.63	39.24	31.83	17.28	40.60
Loans and notes payable	.99	6.53	18.56	18.18	24.86	18.79

TABLE IV

*The Capital Structures of Certain Gas and Electric Light Companies
Expressed as Percentages¹*

<i>Boston Consolidated</i>						
<i>Gas Company</i>	1926	1921	1915	1910	1905	1900
Capital stock	60.76	61.07	55.25	59.97	62.97	
Premiums on capital stock		35.91	32.49	35.26	37.03	
Preferred stock						
Funded debt	39.24					
Notes payable		3.03	12.26	4.73		
<i>Cambridge Gas Light</i>						
<i>Company</i>						
Capital stock	59.96	54.79	55.79	57.75	74.26	100.
Premiums on capital stock	36.94	31.18	29.90	22.91	6.75	
Preferred stock						
Funded debt						
Notes payable	3.10	14.02	14.31	19.35	18.99	
<i>East Boston Gas</i>						
<i>Company</i>						
Capital stock		57.73	66.40	98.12	83.02	100.
Premiums on capital stock		1.10	1.27	1.88		
Preferred stock						
Funded debt						
Notes payable		41.16	32.33		16.98	
<i>Edison Illuminating Com-</i>						
<i>pany of Boston</i>						
Capital stock	39.04	33.80	49.06	56.02	59.72	93.33
Premiums on capital stock	24.16	26.89	37.28	35.47	27.59	
Preferred stock						
Funded debt		1.88	3.37	5.31	7.72	4.29
Notes payable	36.80	37.44	10.28	3.20	4.97	2.38

¹ Source: Table II, p. 218.

*Greenfield Gas Light**Company*

Capital stock	24.84	17.11	48.54	43.44	92.59	100.
Premiums on capital stock						
Preferred stock	17.18	17.11				
Funded debt	41.41	15.46	21.93	33.94		
Notes payable	16.56	50.31	29.53	22.62	7.41	

*Worcester Electric Light**Company*

Capital stock	59.14	47.47	59.57	70.18	77.92	100.
Premiums on capital stock	40.86	34.13	37.87	25.44	22.08	
Preferred stock						
Funded debt						
Notes payable		18.40	2.55	4.39		

*Worcester Gas Light**Company*

Capital stock	43.24	27.35	42.62	62.50	69.87	83.33
Premiums on capital stock	17.95	16.60	25.88	28.13	21.83	
Preferred stock	7.38	3.20				
Funded debt	29.53	27.35				
Notes payable	1.90	25.49	31.51	9.37	8.30	16.67

TABLE V

Dividend Payments of Various Gas and Electric Companies, 1922-1925¹

	(Per cent)			
	1922	1923	1924	1925
<i>Electric companies</i>				
Northampton	48	49	50	55
Milford	24	30	30	35
Quincy	12	24	21	36
Worcester	20	20	22	23
Cambridge	18	18	20	21
Gloucester	15	15 ³ / ₄	18	18
Ayer	9	12	18	16
Attleboro	17	15	15	16
Leominster	9 ¹ / ₂	10	18	18
Malden	14	12	16	16
United (Springfield)	12	12	14	15
<i>Gas companies</i>				
Northampton	24	26	18	20
Williamstown	24	20	20	22
Adams	12	14 ¹ / ₂	16	19
Cambridge	12	15	12	18
<i>Gas and electric companies</i>				
Charlestown	20	24	21	24
Beverly	17 ³ / ₄	18	18	18
Lynn	21	20	20	20

¹ Address of Governor Alvan T. Fuller to the two branches of the Legislature of Massachusetts, January 6, 1927. Senate Document 1 of 1927, pp. 23-24. The dividend rates are quoted on the par value of the stock.

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In referring to the general revisions of the Massachusetts statutes, the following abbreviations are used:

- R. S. for Revised Statutes of 1836.
- G. S. for General Statutes of 1860.
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